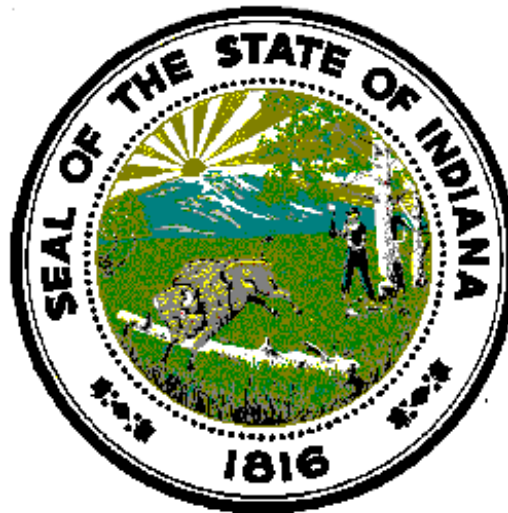


INDIANA CAREER CLUSTER GUIDE

4th Edition



Frank O'Bannon, Governor
Joseph E. Kernan, Lt. Governor
Craig E. Hartzer, Commissioner

Indiana Department of Workforce Development / Technical Education
Indiana Occupational Information Coordinating Committee

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INDIANA CAREER CLUSTER GUIDE

4th Edition

INTRODUCTION

Welcome to the fourth edition of the *Indiana Career Cluster Guide*. This edition builds on the first three and features enhancements suggested by those who use the documents. The *Indiana Career Cluster Guide* is organized by Indiana's 14 career clusters and offers a look into the labor market for each of the 14 clusters. The 14 career clusters are:

- | | |
|----|---|
| 01 | <i>Agriculture</i> |
| 02 | <i>Art, Media, & Communications</i> |
| 03 | <i>Engineering, Science, & Technologies</i> |
| 04 | <i>Manufacturing & Processing</i> |
| 05 | <i>Mechanical Repair & Precision Crafts</i> |
| 06 | <i>Business, Management, & Finance</i> |
| 07 | <i>Building & Construction</i> |
| 08 | <i>Educational Services</i> |
| 09 | <i>Health Services</i> |
| 10 | <i>Personal & Commercial Services</i> |
| 11 | <i>Legal, Social, & Recreation Services</i> |
| 12 | <i>Protective Services</i> |
| 13 | <i>Marketing, Sales, & Promotion</i> |
| 14 | <i>Transportation</i> |

As in the first three editions, the *Guide* provides information about job opportunities in each cluster through the use of supply and demand projections. The *Guide* projects the need of business and industry throughout the state to the year 2008. At the end of each cluster is a summary that specifies whether there will be an oversupply or undersupply of jobs for that cluster. If there is an oversupply, there will be fewer job opportunities for individuals interested in that area. If there is an undersupply, there will be more

job opportunities for individuals interested in that area. This information is important for individuals investing time and money in career preparation, wanting to make career changes, assisting others in career planning, planning educational offerings at schools and institutions, and setting policy for education.

The most notable addition to the *Indiana Career Cluster Guide* is the wage data by occupation. For each occupation, an individual can see the opportunities that may be available and the average wages paid in Indiana for those opportunities. In the 4th Edition, the supply and demand information has been updated with the latest data available. Additional subcategories of information across the 14 career clusters are also available.

Indiana has identified 14 career clusters as a way to organize information. The career clusters form the basis for organizing career and occupational information, data collection, and curriculum and instruction. The career clusters cover elementary, secondary, and postsecondary educational endeavors, including Tech Prep, vocational and technical education, career education, and others.

The Indiana career clusters were developed in cooperation from the Indiana Department of Education, Indiana Career and Postsecondary Advancement Center (ICPAC), and the Indiana Department of Workforce Development.

While this *Guide* cannot address all of the issues surrounding a dynamic labor market, it is one tool for use in career and policy planning. With increased emphasis on preparing students for jobs in demand, this guide and other sources of labor market information become important resources to assist individuals preparing for the workforce.

Additional copies of the *Indiana Career Cluster Guide* are available at:

Indiana Department of Workforce Development
Technical Education
Indiana Government Center South
10 N. Senate Ave., Rm SE212
Indianapolis, IN 46204-2277
(317) 232-1820
teched@dwd-is.state.in.us

TECHNICAL NOTES

The *Indiana Career Cluster Guide* provides actual numbers of labor force supply and demand for all career clusters. Each cluster is subdivided into career focuses and units of analysis. Career focuses are subsets of the broad career clusters. The unit of analysis links labor market supply information and labor market demand information. Demand information is provided using Occupational Employment Statistics (OES) codes defined by the United States Department of Labor. Supply information is provided using Classification of Instructional Program (CIP) codes defined by the United States Department of Education. The units of analysis were developed by the National Occupational Information Coordinating Committee (NOICC) and organized by the 14 Indiana career clusters. Each career focus area identifies similar units of analysis. In cases where no data are currently available, “n/a” has been inserted into the data field.

The following example illustrates how to “read” the *Indiana Career Cluster Guide*:

The following examples describe how the Indiana Career Cluster Guide allows the user to better understand the relationship between the demand for labor as defined by the Occupational Employment Statistics (OES) program and its related five-digit coding system and the supply of labor as defined by the Classification of Instructional Program (CIP) and its related six-digit coding system. Refer to the following data as you "walk" through the example for Career Cluster #7 and Career Focus #04-09.

Career Cluster Number: 07			AVG						COMPLT	EST.
Career Cluster: Building & Construction			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.
Career Focus: Construction Group (04-09)			WAGES	EMPL	EMPL	GROWTH	REPLCEMT	TOTAL	1998-2001	TOTAL
										+/-
										SUPPLY
Units of Analysis	Occupational Titles									
(A)										
1410	OES	BRICKLAYING	(C)	(D)	(D)	(E)	(F)	(G)		
	87302	Brick Masons	\$18.00	4300	5260	953	880	1833		
	87305	Stone Masons	n/a	330	420	82	68	150		
(B)	87308	Hard Tile Setters	n/a	430	520	88	111	199		
	98311	Helpers, Brick & Stonemasons & Hard Tile Setters	\$12.13	1510	1780	275	695	970		
			Total Job Openings For U/A 1410					3152		
CIP									(I)	(J)
(H)	46.0101	Mason & Tile Setter							20	200
			Total Completers For U/A 1410						200	
			Undersupply							-2952

(A) Unit of Analysis #1410 (Bricklaying) is one of the nine units found in Cluster #7 and one of the over 230 units found in the fourth edition of the Indiana Career Cluster Guide.

(B) For Unit of Analysis #1410, four Occupational Employment Statistics (OES) codes define labor market demand.

- (C) For all Units of Analysis and related OES codes, the Average Hourly Wage Rates (1999) given are dependent upon availability from the Indiana Wage Survey of Employers. The survey includes most Indiana employers and is conducted annually with approximately one third of employers responding each year.
- (D) The Department of Workforce Development's long-term projections series using 1998 as the base year for employment states that 4,300 (rounded) persons worked as Brick Masons (OES 87302) during 1998 with a forecasted 5,260 workers by year 2008.
- (E) The numerical increase in new jobs (growth) for workers employed in Bricklaying (OES 87302) between 1998 and 2008 is 953.
- (F) The "turnover" or anticipated replacement needs forecasted for workers in Bricklaying (OES 87302) is 880 by the year 2008.
- (G) Total job openings (new & replacement) for OES 87302 is projected at 1,833 over the period of 1998-2008. Total job openings (new & replacement) for all unit of analysis #1410 is projected at 3,152 over the period of 1998-2008.
- (H) For Unit of Analysis #1410, one Classification of Instructional Program (CIP) code defines labor market supply. The code represents an educational program being offered in Indiana public secondary schools and public and private postsecondary institutions.
- (I) The labor supply is derived from educational program completer data aggregated and averaged for three consecutive but separate school years (1998-99, 1999-2000, 2000-01). Using this method, potentially large scale variations in computer data from successive years was minimized.
- (J) Once the completers for a specific educational program is computed, the projected number of completers is calculated to the year 2008 and is found in the column titled Est. Total (Estimated Total). Both supply and demand are aligned over a ten year period ending in 2008. Projected education completers by year 2008 for #1410 is 200.
- (K) For Unit of Analysis #1410, the Indiana Career Cluster Guide indicates an undersupply or shortage of labor to the year 2008. The undersupply (-2952) is the difference between total job openings of 3152 (G) and total completers 200 (J).

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CAREER CLUSTER NUMBER: 01		AVG						COMPLT		EST.
CAREER CLUSTER: AGRICULTURE & NATURAL RESOURCES		1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Natural Resources/Agriculture (08-19)		WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis	Occupational Titles									
2010	OES FARMING									
	24502 Biological, Agricultural & Food Technology	\$15.77	500	520	18	114	132			
	31323 Farm & Home Management Advisors	\$10.39	n/a	n/a	n/a	n/a	n/a			
	71002 Farmers	n/a	56940	51650	-5293	8824	8824			
	71005 Farm Managers	n/a	3350	3830	481	563	1044			
	72002 First Line Supvs: Ag, Forst, Fish	\$15.61	1040	1330	284	152	436			
	72008 Supervisors, Farm Workers	n/a	210	210	-1	17	17			
	74002 Farm Wkrs, Ex Agri Serv	n/a	4,550	4,460	-88	1398	1398			
	75015 Supervisors, Related Agricultural Occupations	n/a	n/a	n/a	n/a	n/a	n/a			
	79015 Animal Breeders	n/a	n/a	n/a	n/a	n/a	n/a			
	Total Job Openings For U/A 2010						11851			
	CIP									
	01.0101 Agricultural Business & Mgmt, General							1205	12050	
	01.0102 Agricultural Business/Agribusiness Operations							266	2660	
	01.0104 Farm & Ranch Management							156	1560	
	01.0199 Agricultural Business Management, Other							52	520	
	01.0301 Agricultural Production Workers & Managers, Gen.							0	0	
	01.0302 Agricultural Animal Husbandry & Production Mgmt							0	0	
	01.0304 Crop Production Operations & Mgmt							0	0	
	01.0399 Agricultural Production Workers & Managers, Other							0	0	
	01.0701 International Agriculture							0	0	
	01.9999 Agricultural Business & Production, Other							0	0	
	Total Completers For U/A 2010								16790	
	Oversupply									4939
2030	OES FISH & WILDLIFE MANAGEMENT									
	63041 Fish & Game Wardens	n/a	210	220	11	19	30			
	Total Job Openings For U/A 2030						30			
	CIP									
	01.0303 Aquaculture Operations & Production Management							0	0	
	03.0301 Fishing & Fisheries Sciences & Management							0	0	
	03.0601 Wildlife & Wetlands Management							33	330	
	Total Completers For U/A 2030								330	
	Oversupply									300
CAREER CLUSTER NUMBER: 01		AVG					NEW & REPLACMT	COMPLT		EST.
CAREER CLUSTER: AGRICULTURE & NATURAL RESOURCES		1999	1998	2008	JOB	OPENINGS	TOTAL JOB	3YR AVG	EST.	+/-

CAREER FOCUS: Natural Resources/Agriculture (08-19)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	OPENINGS	1998-2001	TOTAL	SUPPLY	
Units of Analysis	Occupational Titles											
2040	OES	FOOD PROCESSING/PRODUCTION										
	83000	Inspectors & Related Workers	n/a	n/a	n/a	n/a	n/a	n/a				
	83099	All Other Inspectors, Testers	13.41	1450	1860	401	331	732				
	89808	Food Batchmakers	\$14.71	880	880	-4	273	273				
	89899	All Other Precision Food & Tobacco Workers	\$14.71	610	700	86	189	275				
	92917	Cooking Machine Operators & Tenders, Food/Tobacco	\$9.53	210	200	-10	31	31				
	92921	Roasting Machine Oprs/Tenders	\$11.02	220	190	-26	51	51				
	92932	Dairy Processing Equipment Operators, Include Setters	\$15.42	n/a	n/a	n/a	n/a	n/a				
	92965	Crushing, Grinding, Mixing & Blending Machine Oper	\$14.23	4690	5010	327	1101	1428				
		Total Job Openings For U/A 2040							2790			
	CIP											
	01.0401	Agricultural & Food Products Processing Ops & Mgt							0	0		
		Total Completers For U/A 2040								0		
		Undersupply									-2790	
2050	OES	AGRICULTURAL SERVICES & SUPPLIES										
	21305	Purchasing Agents and Buyers	\$17.93	750	680	-66	193	193				
	49011	Salespersons, Retail	\$9.02	87,800	101470	13668	29757	43425				
	67008	Pest Controllers & Assistants	\$10.93	790	1100	307	179	486				
	70010	Agricultural/Forestry/Fishing & Related Occ	n/a	n/a	n/a	n/a	n/a	n/a				
	75005	Inspectors, Agricultural Production	n/a	n/a	n/a	n/a	n/a	n/a				
	79011	Graders & Sorters, Agricultural Products	\$10.12	970	960	-11	244	244				
	79017	Animal Caretakers, Except Farm	\$7.25	3030	3940	907	435	1342				
	79999	All Other Agriculture/Forestry/Fishing & Related Wkrs	\$8.26	1250	1280	38	383	421				
	97102	Truck Drivers, Heavy	\$13.91	55290	62800	7503	7939	15442				
	97105	Truck Drivers, Light	\$12.17	31600	38820	7220	4538	11758				
		Total Job Openings For U/A 2050							73311			
	CIP											
	01.0501	Agricultural Supplies Retailing & Wholesaling							0	0		
	01.0599	Agricultural Supplies & Related Services, Other							0	0		
		Total Completers For U/A 2050								0		
		Undersupply									-73311	

CAREER CLUSTER NUMBER: 01			AVG				NEW & REPLACMN	COMPLT	EST.		
CAREER CLUSTER: AGRICULTURE & NATURAL RESOURCES			1999	1998	2008	JOB	OPENINGS	TOTAL JOB	3YR AVG	+/-	
CAREER FOCUS: Natural Resources/Agriculture (08-19)			WAGES	EMPL	EMPL	GROWTH	REPLACMT	OPENINGS	1998-2001	TOTAL SUPPLY	
Units of Analysis	Occupational Titles										
2051	OES	ANIMAL TRAINERS									
	79016	Animal Trainers	\$9.70	n/a	n/a	n/a	n/a	n/a			
	Total Job Openings For U/A 2051								n/a		
	CIP										
	01.0505	Animal Trainer							0	0	
	01.0507	Equestrine/Equine Studies, Horse Mgt & Training							0	0	
	Total Completers For U/A 2051								0		
	Supply									0	
	2060	OES	GARDEN & LANDSCAPE SERVICES								
		15031	Nursery & Greenhouse Managers	\$19.49	250	270	24	20	44		
15032		Lawn Service Managers	\$20.02	1210	1750	544	96	640			
79005		Nursery Workers	n/a	n/a	n/a	n/a	n/a	n/a			
79030		Gardeners & Groundskeepers, Exc. Farm	n/a	n/a	n/a	n/a	n/a	n/a			
79033		Pruners	\$11.20	670	940	271	200	471			
79036		Sprayers/Applicators	\$11.47	630	830	203	181	384			
79038		Lawn Maintenance Workers	n/a	n/a	n/a	n/a	n/a	n/a			
Total Job Openings For U/A 2060								1539			
CIP											
01.0601		Horticulture Services Operations & Mgt, General							747	7470	
01.0603		Ornamental Horticulture Operations & Mgt							0	0	
01.0604		Greenhouse Operation & Management							0	0	
01.0605		Landscaping Operations & Management							477	4770	
01.0606		Nursery Operation & Management							0	0	
01.0607		Turf Management							0	0	
01.0699		Horticulture Services Operations & Mgt., Other							23	230	
Total Completers For U/A 2060								12470			
Oversupply									10931		
2070	OES	AGRICULTURAL FOOD SCIENCES									
	24305	Agricultural & Food Scientists	\$22.36	320	360	34	83	117			
	Total Job Openings For U/A 2070								10		
	CIP										
	02.0101	Agriculture/Agricultural Sciences, General							54	540	
	02.0102	Agricultural Extension							0	0	
CAREER CLUSTER NUMBER: 01			AVG				NEW & REPLACMN	COMPLT	EST.		
CAREER CLUSTER: AGRICULTURE & NATURAL RESOURCES			1999	1998	2008	JOB	OPENINGS	TOTAL JOB	3YR AVG	+/-	

CAREER FOCUS: Natural Resources/Agriculture (08-19)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	OPENINGS	1998-2001	TOTAL	SUPPLY
Units of Analysis	Occupational Titles										
2070	CIP	AGRICULTURAL FOOD SCIENCES (CONT'D)									
	02.0201	Animal Sciences, General							1259		12590
	02.0202	Agricultural Animal Breeding & Genetics							0		0
	02.0203	Agricultural Animal Health							0		0
	02.0204	Agricultural Animal Nutrition							0		0
	02.0205	Agricultural Animal Physiology							0		0
	02.0206	Dairy Science							0		0
	02.0209	Poultry Science							0		0
	02.0299	Animal Sciences, Other							35		350
	02.0301	Food Sciences & Technology							287		2870
	02.0401	Plant Sciences, General							442		4420
	02.0402	Agronomy & Crop Science							58		580
	02.0403	Horticulture Science							44		440
	02.0405	Plant Breeding & Genetics							0		0
	02.0406	Agricultural Plant Pathology							0		0
	02.0407	Agricultural Plant Physiology							0		0
	02.0408	Plant Protection (Pest Mgmt)							0		0
	02.0409	Range Sci. & Mgmt.							0		0
	02.0499	Plant Sciences, Other							4		40
	02.0501	Soil Sciences							0		0
	02.9999	Agriculture/Agricultural Sciences, Other							0		0
			Total Completers For U/A 2070							21830	
			Oversupply								21820
2080	OES	FOREST & CONSERVATION WORK/SCIENCE									
&	24302	Foresters & Conservation Scientists	19.23	330	360	31	85	116			
2090	79002	Forest & Conservation Workers	\$13.55	280	300	19	62	81			
			Total Job Openings For U/A 2080/90						149		
	CIP										
	03.0101	Natural Resources Conservation, General							111		1110
	03.0201	Natural Resources Management & Policy							0		0
	03.0203	Natural Res. Law Enforcement & Protective Serv							0		0
	03.0299	Natural Resources Mgt & Protective Services, Other							650		6500

CAREER CLUSTER NUMBER: 02	AVG						COMPLT		EST.
CAREER CLUSTER: ART, MEDIA & COMMUNICATIONS	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Fine & Performance Art Group (01-01)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1994-97	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
2790	OES	ARTS & CRAFTS							
	34035	Artists & Related Workers	\$19.62	3710	4420	710	766	1476	
	89706	Paste-Up Workers	\$ 13.28	170	80	-88	29	29	
	89911	Precision Detail Design Decorators & Painters	\$ 9.91	190	210	20	44	64	
		Total Job Openings For U/A 2790						1569	
	CIP								
	50.0201	Crafts, Folk Art						8	80
	50.0402	Graphic Design, Commercial						27	270
	50.0701	Art, General						0	0
	50.0702	Fine/Studio Arts						0	0
	50.0705	Drawing						0	0
	50.0706	Intermediate						0	0
	50.0708	Painting						0	0
	50.0709	Sculpture						0	0
	50.0710	Printmaking						0	0
	50.0711	Ceramic Arts & Ceramics						0	0
	50.0712	Fiber, Textile & Weaving						0	0
	50.0713	Metal & Jewelry Arts						0	0
	50.0799	Fine Arts & Art Studies, Other						0	0
	51.2703	Medical Illustrating						0	0
		Total Completers For U/A 2790							350
		Undersupply							-1219
2800	OES	DANCE							
	34053	Dancers & Choreographers	14.34	290	330	42	65	107	
		Total Job Openings For U/A 2800						107	
	CIP								
	50.0301	Dance						0	0
		Total Completers For U/A 2800							0
		Undersupply							-107
2810	OES	PHOTOGRAPHY							
	34023	Photographers	\$9.79	3420	3600	173	505	678	
		Total Job Openings For U/A 2810						678	

CAREER CLUSTER NUMBER: 02	AVG						COMPLT		EST.
CAREER CLUSTER: ART, MEDIA & COMMUNICATIONS	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-

CAREER CLUSTER NUMBER: 02	AVG						COMPLT	EST.	
CAREER CLUSTER: ART, MEDIA & COMMUNICATIONS	1999	1998	2008	<u>JOB</u>	<u>OPENINGS</u>		3YR AVG	EST.	+/-
CAREER FOCUS: Fine & Performance Art Group (01-01)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1994-97	TOTAL	SUPPLY

Units of Analysis		Occupational Titles		
2840	CIP	MUSIC (CONT'D)		
	50.0907	Music-Piano & Organ	0	0
	50.0908	Music-Video	0	0
	50.0909	Music Business Management	0	0
	50.0999	Music, Other	24	<u>264</u>
		Total Completers For U/A 2840		3514
		Oversupply		3042
S19	CIP	MISCELLANEOUS ARTS PROGRAMS		
	50.0101	Visual & Performing Arts	0	0
	50.0902	Music History & Literature	0	0
	50.9999	Visual & Performing Arts, Other	0	<u>0</u>
		Total Completers For U/A S19		0

CAREER CLUSTER NUMBER: 02	AVG						COMPLT		EST.
CAREER CLUSTER: ART, MEDIA & COMMUNICATIONS	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Design Group (01-02)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1994-97	TOTAL	SUPPLY

Units of Analysis		Job Openings							Completers		Undersupply	
U/A	OES	DESIGN										
2140	OES	DESIGN										
	34038	Designers, Except Interior Designers	\$16.02	5760	7400	1639	840	2479				
	34044	Merchandise Displayers & Window Trimmers	\$9.37	750	830	80	109	189				
				Total Job Openings For U/A 2140						2668		
	CIP											
	08.0503	Floristry Marketing Operations							0	0		
	50.0401	Design & Visual Communications							91	910		
	50.0404	Industrial Design							0	0		
	50.0407	Fashion Design & Illustration							0	0		
	50.0499	Design & Applied Arts							34	340		
50.0502	Technical Theater/Design & Stagecraft							0	0			
			Total Completers For U/A 2140						1250			
			Undersupply								-1418	
2385	OES	INTERIOR DESIGN										
	34041	Interior Designers	\$14.75	710	940	232	104	336				
				Total Job Openings For U/A 2385						336		
	CIP											
	04.0501	Interior Architecture							22	220		
	20.0501	Home Furnishings & Equipment							0	0		
	20.0599	Home Furnishings & Equipment, Other							8	80		
	50.0408	Interior Design							0	0		
				Total Completers For U/A 2385						300		
				Undersupply								-36

CAREER CLUSTER NUMBER: 02			AVG			COMPLT			EST.
CAREER CLUSTER: ART, MEDIA & COMMUNICATIONS			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Architecture Group (02-03)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	TOTAL
Units of Analysis	Occupational Titles								
1020	OES	ARCHITECTURE GROUP							
	22302	Architects, Except Landscape & Marine	\$24.47	2230	3100	868	333	1201	
			Total Job Openings For U/A 1020						200
	CIP								
	04.0201	Architecture						35	350
	04.0401	Architectural Environmental Design						44	440
	04.9999	Architecture & Related Programs						0	0
			Total Completers For U/A 1020						790
			Oversupply						590
1040	OES	LANDSCAPE ARCHITECTURE							
	22308	Landscape Architects	\$19.06	260	330	68	39	107	
			Total Job Openings For U/A 1040						107
	CIP								
	04.0601	Landscape Architecture						51	510
			Total Completers For U/A 1040						510
			Oversupply						403

CAREER CLUSTER NUMBER: 02	AVG						COMPLT		EST.
CAREER CLUSTER: ART, MEDIA & COMMUNICATIONS	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Information Collection & Dissemination (10-28)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1994-97	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
1300	OES	LIBRARY SCIENCE							
	31502	Librarians, Professional	\$19.07	3410	3450	39	872	911	
				Total Job Openings For U/A 1300				1020	
	CIP								
	25.0101	Library Science/Librarianship					186	1860	
	25.9999	Library Science, Other					0	0	
				Total Completers For U/A 1300				1860	
				Oversupply					840
1320	OES	ARCHIVAL SCIENCE							
	31511	Curators, Archivists, Museum Tech & Restoration	\$15.01	310	350	37	85	122	
				Total Job Openings For U/A 1320				90	
	CIP								
	30.1401	Museology/Museum Studies					0	0	
	45.0805	Public/Applied History					0	0	
	50.0703	Art History, Criticism & Conservation					39	390	
				Total Completers For U/A 1320				390	
				Oversupply					300
2210	OES	COMMUNICATIONS/JOURNALISM/BROADCAST							
	34002	Writers & Editors	\$16.07	3210	3750	538	848	1386	
	34005	Technical Writers	\$17.63	800	1060	261	208	469	
	34011	Reporters & Correspondents	n/a	1140	1120	-19	358	358	
	34014	Broadcast News Analysts	n/a	n/a	n/a	n/a	n/a	n/a	
	34017	Announcers, Radio & Television	n/a	1120	1090	-32	358	358	
	34021	Announcers, Except Radio & Television	n/a	230	280	54	54	108	
				Total Job Openings For U/A 2210				2679	
	CIP								
	09.0101	Communications, General					313	3130	
	09.0401	Journalism					160	1600	
	09.0402	Broadcast Journalism					0	0	
	09.0403	Mass Communications					7	70	
	09.0499	Journalism & Mass Communication, Other					0	0	
	09.0701	Radio & Television Broadcasting					383	3830	

CAREER CLUSTER NUMBER: 02	AVG						COMPLT		EST.
CAREER CLUSTER: ART, MEDIA & COMMUNICATIONS	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-

CAREER FOCUS: Information Collection & Dissemination (10-28)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1994-97	TOTAL	SUPPLY	
Units of Analysis	Occupational Titles											
2210	CIP	COMMUNICATIONS/JOURNALISM/BROADCAST (CONT'D)										
	09.9999	Communications, Other							44	440		
	50.0699	Film/Video & Photographic Arts, Other							0	0		
	10.0104	Radio & Television Broadcasting Technology/Tech.							19	190		
	23.0501	English Creative Writing							7	70		
	23.1101	English Technical & Business Writing							21	210		
	52.0501	Business Communications							5	50		
			Total Completers For U/A 2210							9590		
			Oversupply									6911
2480	OES	LIBRARY ASSISTING										
	31505	Technical Assistants, Library	\$10.14	1980	2220	239	541	780				
			Total Job Openings For U/A 2480							1010		
	CIP											
	25.0301	Library Assistant							0	0		
			Total Completers For U/A 2480							0		
			Undersupply									-780

CAREER CLUSTER NUMBER: 02	AVG						COMPLT		EST.
CAREER CLUSTER: ART, MEDIA & COMMUNICATIONS	1999	1998	2008	JOB	OPENINGS	EST.	3YR AVG	EST.	+/-
CLUSTER FOCUS: Humanities (15-42)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1994-97	TOTAL	SUPPLY

Units of Analysis

Units of Analysis	Occupational Titles		
S02	CIP MULTIMEDIA STUDIES		
	03.0102 Environmental Science/Studies		43 430
	05.0207 Women's Studies	Reference: S02, S09, S11, S19	7 70
	30.0101 Biological & Physical Sciences	Occupational information (OES codes & data)	27 270
	30.0501 Peace & Conflict Studies	are not provided for the Humanities Cluster Focus 15-42	0 0
	30.0601 Systems Science & Theory	group, therefore, only supply side data are available	4 40
	30.0801 Mathematics & Computer Science		0 0
	30.1001 Biopsychology		0 0
	30.1101 Gerontology		0 0
	30.1201 Historic Preservation, Conservation & Arch.		0 0
	30.1301 Medieval & Renaissance Studies		0 0
	30.1501 Science, Technology & Society		0 0
	30.9999 Multi/Interdisciplinary Studies, Other		27 270
	31.0506 Socio-Psychological Sports Studies		0 0
	Total Completers For U/A S02		1080
S09	CIP LITERATURE & FOREIGN LANGUAGE		
	16.0101 Foreign Languages & Literature		55 550
	16.0102 Linguistics		32 320
	16.0301 Includes; Chinese, Japanese, East & Southeast Asian		2 20
	thru Languages & Literature, also Slavic & German		0 0
	16.0501 Languages & Literature		32 320
	16.0901 French Language & Literature		47 470
	16.0902 Italian Language & Literature		7 70
	16.0904 Portuguese Language & Literature		1 10
	16.0905 Spanish Language & Literature		91 910
	16.1199 Includes: Middle Eastern Languages, Classics & Class-		7 70
	thru ical Literature, Greek Language, Latin Language & Lit-		14 140
	erature, also Foreign Languages & Literature, Other		2 20
	23.0301 Comparative Literature		20 200
	23.0701 American Literature		0 0
	23.0801 English Literature		0 0
	39.0101 Biblical & Other Theological Languages & Lit.		0 0
	Total Completers For U/A S09		3100

CAREER CLUSTER NUMBER: 02	AVG						COMPLT		EST.
CAREER CLUSTER: ART, MEDIA & COMMUNICATIONS	1999	1998	2008	JOB	OPENINGS	EST.	3YR AVG	EST.	+/-
CLUSTER FOCUS: Humanities (15-42)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1994-97	TOTAL	SUPPLY

Units of Analysis Occupational Titles

S11	CIP	LIBERAL ARTS & HUMANITIES							
	22.0102	Pre-law Studies					3	30	
	23.0101	English Language & Literature, General					582	5820	
	23.0401	English Composition					0	0	
	23.1001	Speech & Rhetorical Studies					67	670	
	23.9999	English Language & Literature/Letters					0	0	
	24.0101	Liberal Arts & Sciences/Liberal Studies					980	9800	
	24.0102	General Studies					1126	11260	
	24.0103	Humanities/Humanistic Studies					17	170	
	24.0199	Liberal Arts & Sciences, Other					130	1300	
Total Completers For U/A S11								29050	
S19	CIP	MISCELLANEOUS ARTS PROGRAMS							
	50.0101	Visual & Performing Arts					0	0	
	50.0902	Music History & Literature					0	0	
	50.9999	Visual & Performing Arts, Other					0	0	
Total Completers For U/A S19								0	

ART, MEDIA & COMMUNICATIONS - 02 SUMMARY						OVER	UNDER	BALANCE
Units of Analysis With Oversupply:		2210, 2840, 2140, 1020, 1040, 1300, 1320					12540	
Units of Analysis With Undersupply:		2790, 2800, 2810, 2830, 2835, 2480					-4168	
Career Cluster Balance:		Oversupply						8372

CAREER CLUSTER NUMBER: 03			AVG						COMPLT		EST.
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Engineering Group (02-04)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis		Occupational Titles									
1110	OES	ALL OTHER ENGINEERING									
	22100	Engineers	n/a	n/a	n/a	n/a	n/a	n/a			
	22132	Safety Engineers, Except Mining	\$25.07	560	610	45	80	125			
	22199	All Other Engineers	24.31	8740	11280	2535	2483	5018			
		Total Job Openings For U/A 1110						5143			
	CIP										
	14.0101	Engineering, General							54	540	
	14.0401	Architectural Engineering							0	0	
	14.0501	Bioengineering & Biomedical Engineering							1	10	
	14.1101	Engineering Mechanics, ALSO: Engineering Physics							0	0	
	TO	Engineering Sci., Environmental/Environmental Hlth Engr.							0	0	
	14.1601	Geological Engineering, Geophysical Engineering							0	0	
	14.2401	Ocean Engineering							0	0	
	14.2701	Systems Engineering, ALSO: Textile Sciences & Engr.							0	0	
	TO	Engineering Design, & Engineering/Industrial							0	0	
	14.3201	Polymer/Plastics Engineering							0	0	
	14.9999	Engineering, Other							103	1030	
		Total Completers For U/A 1110								1580	
		Undersupply									-5143
1111	OES	AGRICULTURAL ENGINEERING									
	22123	Agricultural Engineers	26.66	60	n/a	70	n/a	7			
		Total Job Openings For U/A 1111						7			
	CIP										
	14.0301	Agricultural Engineering							52	520	
		Total Completers For U/A 1111								520	
		Oversupply									513
1112	OES	NAVAL ARCHITECTURE & MARINE ENGINEERING									
	22138	Marine Engineers	27.04	150	n/a	150	n/a	2			
	22305	Marine Architects	27.04	n/a	n/a	n/a	n/a	n/a			
		Total Job Openings For U/A 1112						2			

CAREER CLUSTER NUMBER: 03			AVG					COMPLT	EST.	
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	EST.
CAREER FOCUS: Engineering Group (02-04)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	+/- SUPPLY
Units of Analysis		Occupational Titles								
1112	CIP 14.2201	NAVAL ARCHITECTURE & MARINE ENGINEERING (CONT'D) Naval Archit Naval Architecture & Marine Engineering						0	0	
									0	
										0
										0
1120	OES 22102	AERONAUTICAL/ASTRONAUTICAL ENGINEERING Aeronautical & Astronautical Engineers	20.36	230	n/a	310	n/a	76		
								76		
	CIP 14.0201	Aerospace, Aeronautical & Astronautical Engineering						0	0	
									0	
										-76
1130	OES 22105	METALLURGICAL, CERAMIC & MATERIALS ENG. Metallurgists & Metallurgical/Ceramic/Mtrls Engrs	\$27.80	550	560	13	126	139		
								139		
	CIP 14.0601	Ceramic Sciences & Engineering						0	0	
	14.1801	Materials Engineering						25	250	
	14.2001	Metallurgical Engineering						0	0	
	14.3101	Materials Science						0	0	
									250	
										111
1140	OES 22114	CHEMICAL ENGINEERING Chemical Engineers	\$29.45	970	1090	129	217	346		
								346		
	CIP 14.0701	Chemical Engineering						134	1340	
									1340	
										994
1150	OES 22121	CIVIL ENGINEERING Civil Engineers, Including Traffic	\$25.27	2070	2690	623	396	1019		
								1019		

CAREER CLUSTER NUMBER: 03			AVG						COMPLT		EST.
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: ENGINEERING GROUP (02-04)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis		Occupational Titles									
1150	CIP	CIVIL ENGINEERING (CONT'D)									
	14.0801	Civil Engineering, General							245	2450	
	TO	Also: Geotechnical, Structural, Highway							0	0	
	14.0805	Transportation & Water Resources Engineering							0	0	
	14.0899	Civil Engineering, Other							0	0	
		Total Completers For U/A 1150								2450	
		Oversupply									1431
1160	OES	ELECTRICAL & ELECTRONIC ENGINEERING									
	22126	Electrical & Electronics Engineering	\$25.31	5660	6080	413	1208	1621			
		Total Job Openings For U/A 1160						1621			
	CIP										
	14.1001	Electrical, Electronics, & Communications Engineers							408	4080	
		Total Completers For U/A 1160								4080	
		Oversupply									2459
1161	OES	COMPUTER ENGINEERING									
	22127	Computer Engineers	\$24.98	4220	8450	4224	262	4486			
		Total Job Openings For U/A 1161						4486			
	CIP										
	14.0901	Computer Engineering							89	890	
		Total Completers For U/A 1161								890	
		Undersupply									-3596
1170	OES	INDUSTRIAL ENGINEERING									
	22128	Industrial Engineers, Except Safety	\$25.23	4140	4810	669	588	1257			
		Total Job Openings For U/A 1170						1257			
	CIP										
	14.1701	Industrial/Manufacturing Engineering							195	1950	
		Total Completers For U/A 1170								1950	
		Oversupply									693
1180	OES	MECHANICAL ENGINEERING									
	22135	Mechanical Engineers	\$25.45	7350	8270	923	1421	2344			
		Total Job Openings For U/A 1180						2344			

CAREER CLUSTER NUMBER: 03			AVG					COMPLT		EST.
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS	3YR AVG		+/-
CAREER FOCUS: ENGINEERING GROUP (02-04)			WAGES	EMPL	EMPL	GROWTH	REPLACENT	TOTAL	1998-2001	TOTAL
Units of Analysis		Occupational Titles								
1180	CIP 14.1901	MECHANICAL ENGINEERING (CONT'D) Mechanical Engineering							379	3790
Total Completers For U/A 1180									3790	
Oversupply										1446
1190	OES 22108	MINING ENGINEERING Mining Engineers, Including Mine Safety	25.92	n/a	n/a	n/a	n/a	n/a		
Total Job Openings For U/A 1190									0	
	CIP 14.2101	Mining & Mineral Engineering							0	0
Total Completers For U/A 1190									0	
Supply										0
1200	OES 22117	NUCLEAR ENGINEERING Nuclear Engineers	n/a	n/a	n/a	n/a	n/a	n/a		
Total Job Openings For U/A 1200									0	
	CIP 14.2301	Nuclear Engineering							17	170
Total Completers For U/A 1200									170	
Oversupply										170
1210	OES 22111	Petroleum Engineering Petroleum Engineers	n/a	n/a	n/a	n/a	n/a	n/a		
Total Job Openings For U/A 1210									0	
	CIP 14.2501	Petroleum Engineering							0	0
Total Completers For U/A 1210									0	
Supply										0

CAREER CLUSTER NUMBER: 03			AVG						COMPLT		EST.
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Engineering Technology Group (02-05)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis											
1220	OES	ALL OTHER ENGINEERING TECHNOLOGY									
	21902	Cost Estimators	\$21.10	3950	4740	783	484	1267			
	22500	Engineering & Related Technicians & Technologists	n/a	n/a	n/a	n/a	n/a	n/a			
	22599	All Other Engineering & Related Technicians & Tech.	\$17.14	5700	6490	785	1480	2265			
Total Job Openings For U/A 1220								3532			
	CIP										
	14.2801	Textile Sciences & Engineering							0	0	
	14.9999	Engineering							103	1030	
	15.0101	Architectural Engineering Technology/Technician							201	2010	
	15.0304	Laser & Optical Technology/Technician							8	80	
	15.0503	Energy Management & Systems Technology/Technician							0	0	
	15.0505	Solar Technology/Technician							0	0	
	15.0507	Environmental & Pollution Control Technology/Tech.							0	0	
	15.0599	Environmental Control Technologies, Other							0	0	
	15.0607	Plastics							19	190	
	15.0611	Metallurgical Technology/Technician							0	0	
	15.0699	Industrial Production Technologies/Technicians, Other							79	790	
S 08	15.0701	Occupational Safety & Health Technology/Tech.							42	420	
S 08	15.0799	Quality Control & Safety Technologies/Tech.							8	80	
	15.0801	Aeronautical & Aerospace							77	770	
	15.0899	Mechanical Engineering-Related Technologies, Other							331	3310	
	15.1101	Engineering-Related Technology/Technician, General							0	0	
	15.1103	Hydraulic Technology/Technician							0	0	
	15.9999	Engineering-Related Technologies/Technician, Other							76	760	
	40.9999	Physical Sciences							1	10	
	40.0701	Metallurgy							0	0	
	47.0501	Stationary Energy Sources Installer and Operator							0	0	
Total Completers For U/A 1220									9430		
Oversupply											5918
1221	OES	INDUSTRIAL ENGINEERING TECHNOLOGY									
	22508	Industrial Engineering Technicians	\$18.38	1100	1160	65	224	289			
Total Job Openings For U/A 1221								289			
	CIP										
	15.0603	Industrial/ Manufacturing Technology							178	1780	
Total Completers For U/A 1221									1780		
Oversupply											1491
1222	OES	MECHANICAL ENGINEERING TECHNOLOGY									
	22511	Mechanical Engineering Technicians	\$17.07	2490	2730	245	508	753			
Total Job Openings For U/A 1222								753			

CAREER CLUSTER NUMBER: 03			AVG						COMPLT		EST.
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Engineering Technology Group (02-05)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis			Occupational Titles								
1222	CIP 15.0805	MECHANICAL ENGINEERING TECHNOLOGY (CONT'D) Mechanical Engineering/Mechanical Technology							5	50	
						Total Completers For U/A 1222				50	
						Undersupply					-703
1223	OES 24511	PETROLEUM ENGINEERING TECHNOLOGY Petroleum Technicians/Technologists	n/a	n/a	n/a	n/a	n/a	n/a			
						Total Job Openings For U/A 1223			0		
	CIP 15.0903	Petroleum Technology/Technician							0	0	
						Total Completers For U/A 1223				0	
						Supply					0
1230	OES 22505 83002	ELECTRICAL/ELECTRONIC/ELECTROMECHANICAL Electrical & Electronic Technicians/Technologists Precision Inspectors, Testers & Graders	\$16.45 \$13.41	6370 5260	6870 4830	503 -433	1301 1086	1804 1086			
						Total Job Openings For U/A 1230			2890		
	CIP 15.0301 15.0303 15.0399 52.1201 52.1202 52.1204	Computer Engineering Technology/Technician Electrical, Electronic & Communications Eng. Tech. Electrical & Electronic Engineering-Related Tech Management Information Systems Business Computer Programming/Programmer Business Systems Networking							8 484 5 418 35 48	80 4840 50 4180 350 480	
						Total Completers For U/A 1230				4930	
						Oversupply					7090
1260	OES 22311 22521	SURVEYING Surveyors & Mapping Scientists Surveying & Mapping Technicians	\$14.55 \$13.03	490 1150	530 1540	39 392	110 260	149 652			
						Total Job Openings For U/A 1260			801		
	CIP 15.1102 45.0702	Surveying Cartography							3 0	30 0	
						Total Completers For U/A 1260				30	
						Undersupply					-771

CAREER CLUSTER NUMBER: 03			AVG					COMPLT	EST.
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Engineering Technology Group (02-05)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL 1998-2001	TOTAL +/- SUPPLY
Units of Analysis	Occupational Titles								
1480	OES	COMMUNICATIONS ELECTRONICS							
	39008	Radio Operators	n/a	n/a	n/a	n/a	n/a	n/a	
	85502	Central Office & PBX Installers & Repairers	\$16.02	580	730	154	188	342	
	85505	Frame Wiers, Central Office	\$16.02	110	100	-15	36	36	
	85508	Telegraph & Teletype Installers & Maintainers	\$16.02	n/a	n/a	n/a	n/a	n/a	
	85514	Radio Mechanics	\$13.38	150	160	12	43	55	
	85599	All Other Communication Equip. Mech./Installers/Rprs	\$13.50	550	580	31	155	186	
	85702	Telephone & Cable TV Line Installers & Repairers	\$14.65	2730	3260	535	886	1421	
	85708	Electronic Home Entertainment Equipment Repairers	\$13.51	940	830	-109	266	266	
	85726	Station Installers & Repairers, Telephone	\$16.02	410	230	-179	133	133	
	85914	Camera & Photographic Equipment Repairers	\$14.72	n/a	n/a	n/a	n/a	n/a	
	92905	Motion Picture Projectionists	\$8.26	190	140	-57	46	46	
	93114	Electrical & Electronic Equipment Assemblers, Precisiors	\$12.45	6360	6780	425	1386	1811	
	93905	Electrical & Electronic Equipment Assemblers	\$12.73	8200	7760	-436	1463	1463	
		Total Job Openings For U/A 1480						5759	
	CIP								
	47.0103	Communications Systems						0	0
		Total Completers For U/A 1480							0
		Undersupply							-5759
1530	OES	DRAFTING							
	22514	Drafters	\$16.38	6580	7080	504	1578	2080	
	22517	Estimators & Drafters, Utilities	n/a	n/a	n/a	n/a	n/a	n/a	
		Total Job Openings For U/A 1530						2080	
	CIP								
	48.0101	Drafting, General						427	4270
	48.0102	Architectural Drafting						72	720
	48.0103	Civil/Structural Drafting						0	0
	48.0104	Electrical/Electronics Drafting						0	0
	48.0105	Mechanical Drafting						254	2540
	48.0199	Drafting, Other						10	100
		Total Completers For U/A 1530							1630
		Oversupply							5550

[illegible]

CAREER CLUSTER NUMBER: 03			AVG					COMPLT		
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	
CAREER FOCUS: Natural Sciences/Technology Group (07-15)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
										EST.
										+/-
										SUPPLY
Units of Analysis		Occupational Titles								
1310	OES	BIOLOGICAL/LIFE SCIENCE								
	24300	Life Scientists	n/a	n/a	n/a	n/a	n/a	n/a		
	24308	Biological Scientists	\$21.58	620	770	149	130	279		
	24399	All Other Life Scientists	\$19.85	420	480	60	88	148		
	31202	Life Sciences Teachers, Postsecondary	n/a	740	970	231	204	435		
		Total Job Openings For U/A 1310						862		
	CIP									
	26.0101	Biology, General						0	0	
	26.0202	Biochemistry						0	0	
	26.0203	Biophysics						0	0	
	26.0301	Botany, General						0	0	
	26.0305	Plant Pathology						0	0	
	26.0307	Plant Physiology						0	0	
	26.0399	Botany, Other						0	0	
	26.0401	Cell Biology						0	0	
	26.0402	Molecular Biology						0	0	
	26.0499	Cell and Molecular Biology, Other						0	0	
	26.0501	Microbiology/Bacteriology						0	0	
	26.0603	Ecology						0	0	
	26.0608	Neuroscience						0	0	
	26.0613	Genetics, Plant & Animal						0	0	
	26.0701	General Zoology						0	0	
	26.0702	Entomology						0	0	
	26.0706	Physiology, Human & Animal						0	0	
	26.9999	Biological Sciences						0	0	
		Total Completers For U/A 1310							0	
		Undersupply								-862
1311	OES	MEDICAL SCIENCE								
	24311	Medical Scientists	n/a	90	110	16	27	43		
		Total Job Openings For U/A 1311						43		

CAREER CLUSTER NUMBER: 03			AVG	1998	2008	JOB	OPENINGS	COMPLT	EST.
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	EMPL	EMPL	GROWTH	REPLACEMT	3YR AVG	+
CAREER FOCUS: Natural Sciences/Technology Group (07-15)			WAGES					1998-2001	- SUPPLY
Units of Analysis		Occupational Titles							
1311	CIP	MEDICAL SCIENCE (CONT'D)							
	51.1301	Medical Anatomy						0	0
	51.1302	Medical Biochemistry						0	0
	51.1303	Medical Biomathematics						0	0
	51.1304	Medical Physics/Biophysics						0	0
	51.1305	Medical Cell Biology						0	0
	51.1306	Medical Genetics						0	0
	51.1307	Medical Immunology						0	0
	51.1308	Medical Microbiology						0	0
	51.1309	Medical Molecular Biology						0	0
	51.1310	Medical Neurobiology						0	0
	51.1311	Medical Nutrition						0	0
	51.1312	Medical Pathology						0	0
	51.1313	Medical Physiology						0	0
	51.1314	Medical Toxicology						0	0
	51.1399	Medical Basic Sciences, Other						0	0
	51.1401	Medical Clinical Sciences (M.S., Ph.D.)						0	0
	51.2203	Epidemiology						0	0
		Total Completers For U/A 1311							0
		Undersupply							-43
1330	OES	PHYSICS/ASTRONOMY							
	24100	Physical Scientists	n/a	n/a	n/a	n/a	n/a	n/a	
	24199	All Other Physical Scientists	\$20.74	930	1080	150	240	390	
	24102	Physicists and Astronomers	\$36.35	n/a	n/a	n/a	n/a	n/a	
	31206	Physics Teachers, Postsecondary	n/a	270	330	58	75	133	
		Total Job Openings For U/A 1330						523	
	CIP								
	40.0201	Astronomy						7	70
	40.0301	Astrophysics						0	0
	40.0801	Physics General						85	850
	40.0802	Chemical & Atomic/Molecular Physics						0	0
	40.0804	Elementary & Particle Physics						0	0

CAREER CLUSTER NUMBER: 03			AVG						COMPLT	EST.
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.
CAREER FOCUS: Natural Sciences/Technology Group (07-15)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of Analysis			Occupational Titles							
1330	CIP	PHYSICS/ASTRONOMY (CONT'D)								
	40.0805	Plasma & High Temperature Physics							0	0
	40.0810	Physics, Optics, Solid State, Acoustics & Theoretical							0	0
	40.0899	Physics, Other							0	0
	40.9999	Physical Sciences, Other							1	10
Total Completers For U/A 1330									930	
Oversupply									407	
1340	OES	ATMOSPHERIC/SPACE SCIENCE								
	24108	Atmospheric & Space Scientists	22.42	n/a	n/a	n/a	n/a	n/a		
Total Job Openings For U/A 1340									0	
	CIP									
	40.0401	Atmospheric Sciences							0	0
Total Completers For U/A 1340									0	
Supply									0	
1350	OES	CHEMISTRY								
	24105	Chemists, Except Biochemists	\$22.95	1430	1570	142	320	462		
	31204	Chemistry Teachers, Postsecondary	n/a	310	380	67	86	153		
Total Job Openings For U/A 1350									615	
	CIP									
	40.0501	General Chemistry							260	2600
	40.0599	Chemistry, Other							0	0
Total Completers For U/A 1350									2600	
Oversupply									1985	
1360	OES	EARTH SCIENCE								
	24111	Geologists, Geophysicists & Oceanographers	\$23.63	390	570	177	100	277		
Total Job Openings For U/A 1360									277	
	CIP									
	40.0601	Geology							86	860
	40.0602	Geochemistry							0	0
	40.0603	Geophysics & Seismology							0	0
	40.0604	Palentology							0	0

CAREER CLUSTER NUMBER: 03			AVG						COMPLT		EST.
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS		3YR AVG		+/-
CAREER FOCUS: Natural Sciences/Technology Group (07-15)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis		Occupational Titles									
1360	CIP	EARTH SCIENCE (CONT'D)									
	40.0699	Geological Sciences, Other							0	0	
	40.0702	Oceanography							0	0	
	40.0703	Earth & Planetary Science							1	10	
Total Completers For U/A 1360										870	
Oversupply											593
1370	OES	CHEMICAL TECHNOLOGY									
	24505	Chemical Technicians & Technologists, Exc. Health	\$16.30	2280	2260	-20	518	518			
	92935	Chemical Equipment Controllers & Operators	\$16.05	3380	3910	528	801	1329			
	95008	Chemical Plant & Systems Operators	\$19.26	1160	1440	275	372	647			
Total Job Openings For U/A 1370									2494		
	CIP										
	41.0301	Chemical Technology/Technician							2	20	
Total Completers For U/A 1370										20	
Undersupply											-2474
2370	OES	WATER & WASTEWATER									
	95002	Water & Liquid Waste Treatment Plant & System Ops	\$14.00	2780	2970	189	646	835			
Total Job Openings For U/A 2370									835		
	CIP										
	15.0506	Water Quality & Wastewater Treatment Technology							0	0	
Total Completers For U/A 2370										0	
Undersupply											-835
2540	OES	SCIENCE TECHNOLOGIES									
	24500	Physical & Life Science Technicians & Technology	n/a	n/a	n/a	n/a	n/a	n/a			
	24599	All Other Physical & Life Science Technology	\$17.28	1090	1140	52	248	300			
Total Job Openings For U/A 2540									300		
	CIP										
	41.0399	Physical Science Technologist/Technicians, Other							0	0	
	41.9999	Science Technologist/Technicians, Other							0	0	
Total Completers For U/A 2540										0	
Undersupply											-300

CAREER CLUSTER NUMBER: 03			AVG					COMPLT	EST.	
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Natural Sciences/Technology Group (07-15)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of Analysis	Occupational Titles									
2541	OES	BIOLOGICAL & AGRICULTURAL TECHNOLOGY								
	24502	Biological, Agricultural & Food Technician/Technology	\$15.77	500	520	18	114	132		
				Total Job Openings For U/A 2541					132	
	41.0101	Biological Technology/Technician							1	10
				Total Completers For U/A 2541					10	
				Undersupply						-122
2542		NUCLEAR TECHNOLOGY								
	24508	Nuclear Technicians & Technologists	n/a	n/a	n/a	n/a	n/a	n/a		
				Total Job Openings For U/A 2542					0	
	41.0204	Industrial Radiologic Technologist/Technician							0	0
	41.0205	Nuclear/Nuclear Power Technology							0	0
	41.0299	Nuclear & Industrial Radiologic Technologist							0	0
				Total Completers For U/A 2542					0	
				Supply						0

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CAREER CLUSTER NUMBER: 03	AVG						COMPLT	EST.	
CAREER CLUSTER: ENGINEERING, SCIENCE & TECHNOLOGIES	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Computer Systems Group (07-17)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
2260	OES	COMPUTER SYSTEMS							
	25102	Systems Analysts, Electronic Data Processing	\$21.23	9140	16650	7511	568	8079	
	25103	Database Administrators	\$22.10	1740	2410	670	283	953	
	25104	Computer Support Specialists	\$18.36	6030	10480	4448	375	4823	
	25105	Computer Programmers	\$21.56	7220	8960	1747	2237	3984	
	25108	Computer Programmer Aides	\$21.56	990	1110	120	306	426	
	25111	Programmers, Numerical Tool & Process Control	\$16.02	310	350	38	85	123	
	25199	All Other Computer Scientists	\$19.51	1300	2640	1339	81	1420	
	31226	Computer Science Teachers, Postsecondary	n/a	n/a	n/a	n/a	n/a	n/a	
		Total Job Openings For U/A 2260					19808		
	CIP								
	11.0101	Computer & Information Sciences					860	8600	
	11.0201	Computer Programming					37	370	
	11.0301	Data Processing Technology/Technician					33	330	
	11.0401	Information Sciences & Systems					0	0	
	11.0501	Computer Systems Analysis					0	0	
	11.0701	Computer Science					0	0	
	11.9999	Computer & Information Sciences, Other					328	3280	
	52.1201	Management Information Sys. & Business DP, Gen.					418	4180	
	52.1202	Business Computer Programming/Programmer					35	350	
	52.1203	Business Systems Analysis & Design					0	0	
	52.1204	Business Systems Networking & Telecommunications					48	480	
	52.1299	Business Information & Data Processing Serv., Other					319	3190	
		Total Completers For U/A 2260						20780	
		Oversupply							972

ENGINEERING, SCIENCE & TECHNOLOGIES - 03 SUMMARY	OVER	UNDER	BALANCE
Units Of Analysis With Oversupply:	1221, 1230, 1530, 2490, 1111, 1130, 1140, 1150, 1160, 1170, 1180, 1200, 1220, 1330, 1350, 1360, 2491, 2260	33590	
Units Of Analysis With Undersupply:	1110, 1120, 1161, 1222, 1260, 1480, 2250, 2350, 1310, 1311, 1370, 2370, 2500, 2390, 2540, 2541,	-25512	
Career Cluster Balance:	Oversupply		8078

CAREER CLUSTER NUMBER: 04			AVG				COMPLT	EST.	
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Printing/Publishing Group (05-10)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	+/-
								1998-2001	SUPPLY
Units of Analysis	Occupational Titles								
2240	OES	PHOTOGRAPHIC PROCESSING							
	89914	Precision Photographic Process Workers	\$12.36	170	180	11	68	79	
	92908	Photographic Processing Machine Operators/Tenders	\$9.07	620	510	-115	247	247	
			Total Job Openings For U/A 2240					326	
	CIP								
	10.0103	Photographic Technology/Technician							
								0	0
			Total Completers For U/A 2240					0	
			Undersupply						-326
2680	OES	PRINTING							
	53911	Proofreaders & Copy Markers	\$10.46	570	480	-93	177	177	
	56021	Data Keyers, Composing	\$9.52	170	110	-67	13	13	
	89128	Precision Etchers & Engravers, Hand Or Machine	\$10.14	160	170	6	39	45	
	89705	Job Printers	\$13.49	390	400	12	74	86	
	89712	Photoengravers	\$13.28	n/a	n/a	n/a	n/a	n/a	
	89713	Camera Operators	\$13.28	120	70	-44	20	20	
	89715	Scanner Operations	\$13.28	150	150	6	25	31	
	89717	Strippers	\$13.28	410	280	-133	70	70	
	89718	Platemakers	\$13.28	360	340	-22	62	62	
	89719	All Other Lithography & Photoengraving Workers	\$13.28	310	350	34	53	87	
	89721	Bookbinders*	\$10.61	60	50	-10	17	17	
	89799	All Other Precision Printing Workers	\$13.28	n/a	n/a	n/a	n/a	n/a	
	92522	Specialty Materials Printg Mach Setters & Set-Up Oper	\$13.26	440	500	60	95	155	
	92524	Screen Printing Machine Setters & Set-Up Operators	\$13.26	680	700	13	148	161	
	92529	All Other Printing Related Machine Setters & Set-Up	\$13.26	150	160	5	26	31	
	92549	All Other Printing, Binding, & Related Mach Oper & Tend	\$12.08	470	450	-16	79	79	
	93951	Engraving & Printing Workers, Hand	\$10.14	1570	1810	232	343	575	
			Total Job Openings For U/A 2680					1609	
	CIP								
	48.0201	Graphic & Printing Equipment Operator, General							
	48.0299	Graphic & Printing Equipment Operators, Other							
								288	2880
								16	160
			Total Completers For U/A 2680					3040	
			Oversupply						1431

CAREER CLUSTER NUMBER: 04			AVG					COMPLT	EST.	
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Printing/Publishing Group (05-10)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	TOTAL	SUPPLY
Units of Analysis	Occupational Titles									
2681	OES	TYPESETTING & COMPOSING								
	89702	Hand Compositors & Typesetters	\$13.28	160	130	-32	27	27		
	92541	Typesetting & Composing Machine Operators & Tenders	\$13.28	290	110	-176	49	49		
				Total Job Openings For U/A 2681					76	
	CIP									
	48.0205	Mechanical Typesetter & Composer						0	0	
	48.0211	Computer Typography & Composition Equipment Oper.						0	0	
				Total Completers For U/A 2681					0	
				Undersupply						-76
2682	OES	LITHOGRAPHY & PLATEMAKING								
	92512	Offset Lithographic Press Setters & Set-Up Operator	\$13.26	1680	1450	-227	365	365		
	92545	Photoengraving & Lithographic Machine Oper & Tenders	\$13.28	120	100	(20)	20	20		
				Total Job Openings For U/A 2682					385	
	CIP									
	48.0206	Lithographer & Platemaker						0	0	
				Total Completers For U/A 2682					0	
				Undersupply						-385
2683	OES	PRINTING PRESS OPERATOR								
	92510	Printing Press Machine Setters & Set-Up Operator	\$13.26	630	720	96	136	232		
	92515	Letterpress Setters & Set-Up Operators	\$13.26	150	130	-26	33	33		
	92519	All Other Printing Press Setters & Set-Up Operators	\$13.26	340	320	-16	74	74		
	92543	Printing Press Machine Operators & Tenders	\$13.26	3460	3680	220	752	972		
				Total Job Openings For U/A 2683					1311	
	CIP									
	48.0208	Printing Press Operator						0	0	
				Total Completers For U/A 2683					0	
				Undersupply						-1311
2684	OES	DESKTOP PUBLISHING EQUIPMENT OPERATOR								
	89707	Electronic Pagination System Operators	\$11.71	720	1270	546	123	669		
				Total Job Openings For U/A 2684					669	
	CIP									
	48.0212	Desktop Publishing Equipment Operator						0	0	
				Total Completers For U/A 2684					0	
				Undersupply						-669

CAREER CLUSTER NUMBER: 04			AVG					COMPLT	EST.
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Metal/Plastics Production/Processing Group (05-11)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	EST. TOTAL
								1998-2001	+/- SUPPLY
Units of Analysis	Occupational Titles								
1540	OES	WELDING							
	91702	Welding Machine Setters & Set-Up Operators	\$13.79	1480	1700	220	375	595	
	91705	Welding Machine Operators & Tenders	\$13.79	3360	3840	479	849	1328	
	91708	Soldering & Brazing Machine Setters & Set-Up Oper.	\$13.79	240	250	8	56	64	
	91711	Soldering & Brazing Machine Operators & Tenders	\$13.79	470	580	109	110	219	
	93914	Welders & Cutters	\$13.53	14150	15760	1613	3577	5190	
	93917	Solderers & Brazers	\$13.53	900	890	-9	209	209	
		Total Job Openings For U/A 1540						7605	
CIP									
48.0508	Welder/Welding Technologist							391	3910
		Total Completers For U/A 1540							3910
		Undersupply							-3695
2710	OES	METAL MACHINING							
	83002	Precision Inspectors, Testers & Graders	\$13.41	5260	4830	-433	1086	1086	
	83005	Production Inspectors, Testers, Graders, Sorters	\$13.41	18280	17320	-961	4163	4163	
	83099	All Other Inspectors, Testers, & Related Workers	\$13.41	1450	1860	401	331	732	
	89105	Precision Instrument Makers	\$13.02	n/a	n/a	n/a	n/a	n/a	
	89108	Machinists	\$14.88	14510	15810	1308	2892	4200	
	89111	Tool Grinders, Filers, Sharpeners & Other Precision	\$16.75	1870	2030	158	456	614	
	89117	Precision Layout Workers, Metal	\$13.63	620	710	85	151	236	
	89199	All Other Precision Metal Workers	\$17.14	1340	1320	-14	326	326	
	91102	Sawing Machine Tool Setters & Set-Up Ops, MTL/PLS	\$11.37	2000	2510	510	442	952	
	91105	Lathe & Turning Machine Tool Setters & Set-Up Ops	\$13.56	5890	6390	504	1302	1806	
	91108	Drilling & Boring Machine Tool Setters & Set-Up	\$11.91	2090	1870	-212	461	461	
	91111	Milling & Planing Machine Setters/Set-Up Ops, M/P	\$13.82	1120	1250	134	247	381	
	91114	Grinding, Lapping, & Buffing Machine Tool Setters	\$12.62	3750	3670	-80	1009	1009	
	91117	Machine Tool Cutting Operators & Tenders, MTL/Plas	\$12.66	5730	5360	-370	1448	1448	
	91305	Press & Press-Brake Machine Setters/Set-Up Ops	\$13.82	3950	4700	755	795	1550	
	91308	Shear & Slitter Machine Setters/Set-Up Ops, M/P	\$13.82	1290	1440	150	310	460	
	91311	Extruding & Drawing Machine Setters/Set-Up Ops M/P	\$12.25	2710	3020	315	674	989	
	91314	Rolling Machine Setters & Set-Up Ops, Metal/Plastic	\$11.17	1600	1750	153	353	506	
	91317	Forging Machine Setters & Set-Up Ops, Metal/Plastic	\$10.74	740	930	186	164	350	

CAREER CLUSTER NUMBER: 04			AVG					COMPLT		EST.
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	
CAREER FOCUS: Metal/Plastics Production/Processing Group (05-11)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL 1998-2001	TOTAL	+/- SUPPLY
Units of Analysis	Occupational Titles									
2710	OES	METAL MACHINING (CONT'D)								
	91502	Numerical Control Machine Tool Ops & Tenders M/P	\$14.47	3900	5190	1290	862	2152		
	91505	Combination Machine Tool Setters & Set-Up Ops, M/P	\$14.36	3900	4810	914	862	1776		
	91508	Combination Machine Tool Operators & Tenders, M/P	\$14.36	2670	3330	667	589	1256		
	91928	Heating Equipment Setters & Set-Up Operators, M/P	\$19.56	270	290	29	66	95		
	91932	Heat Treating, Annealing & Temprng Mach Ops & Tndrs	\$19.56	1580	1700	121	393	514		
	92197	All Other Metal & Plastic Machine Setters & Set-Up	\$19.56	3210	3780	574	799	1373		
	92198	All Other Metal & Plastic Machine Operators & Tenders	\$19.56	6080	6930	848	1515	2363		
		Total Job Openings For U/A 2710						30798		
	CIP									
	48.0501	Machinist/Machine Technologist						364	3640	
	48.0503	Machine Shop Assistant						4	40	
	48.0599	Precision Metal Workers, Other						36	360	
		Total Completers For U/A 2710							4040	
		Undersupply								-26758
2711	OES	TOOL AND DIE MAKING								
	89102	Tool & Die Makers	\$19.27	8170	8470	295	1513	1808		
		Total Job Openings For U/A 2711						1808		
	CIP									
	48.0507	Tool & Die Maker/Technologist						42	420	
		Total Completers For U/A 2711							420	
		Undersupply								-1388
2720	OES	METAL FABRICATION								
	83002	Precision Inspectors, Testers & Graders	\$13.41	5260	4830	-433	1086	1086		
	83005	Production Inspectors, Testers, Graders, Sorters	\$13.41	18280	17320	-961	4163	4163		
	83099	All Other Inspectors, Testers, & Related Workers	\$13.41	1450	1860	401	331	732		
	87805	Sheet Metal Duct Installers	\$16.65	680	880	200	174	374		
	89114	Pattern & Model Makers	\$22.03	210	220	8	52	60		
	89117	Precision Layout Workers, Metal	\$13.63	620	710	85	151	236		
	89132	Sheet Metal Workers	\$16.65	5980	6990	1017	1453	2470		

CAREER CLUSTER NUMBER: 04			AVG						COMPLT			EST.
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-	
CAREER FOCUS: Other Production Group (05-12)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY	
Units of Analysis		Occupational Titles										
1632	OES	ORTHOTICS /PROSTHETICS										
	89923	Medical Appliance Makers	11.83	130	160	31	25	56				
Total Job Openings For U/A 1632								n/a				
	CIP											
	51.2307	Orthotics/Prosthetics							0	0		
Total Completers For U/A 1632									0			
Supply										0		
1682	OES	OPTICAL TECHNOLOGY										
	89917	Precision Optical Goods Workers	10.35	450	470	22	55	77				
Total Job Openings For U/A 1682								77				
	CIP											
	51.1006	Optometric/Ophthalmic							0	0		
	51.1802	Optical Technician/Assistant							6	60		
	51.0703	Health Unit Coordinator/Ward Clerk							0	0		
Total Completers For U/A 1682									60			
Undersupply										-17		
2380	OES	QUALITY CONTROL/INSPECTION										
	83002	Precision Inspectors, Testers & Graders	\$ 13.41	5260	4830	-433	1086	1086				
Total Job Openings For U/A 2380								1086				
	CIP											
	15.0702	Quality Control Technology/Technician							1	10		
Total Completers For U/A 2380									10			
Undersupply										-1076		
2420	OES	CLOTHING PRODUCTION										
	81008	First-Line Supervisors & Mngr/Sprv, Production & Oper	\$ 18.65	24530	25890	1359	6877	8236				
	83005	Production Inspectors, Testers, Graders & Sorters	\$ 13.41	18280	17320	-961	4163	4163				
	85956	Menders, Garments, Linens, & Related	\$ 9.07	90	100	7	20	27				
	89502	Fabric & Apparel Patternmakers & Layout Workers	\$ 9.86	180	190	9	35	44				
	89599	All Other Precision Textile/Apparel/Furnishing Worker	\$ 7.94	80	80	3	15	18				
	92717	Sewing Machine Operators, Garment	\$ 8.60	1780	1550	-237	244	244				
	92728	Pressing Machine Operators/Tenders, Textile/Garment/Rel	\$ 8.16	1160	1230	75	192	267				
	93000	Hand Workers Including Assemblers & Fabricators	n/a	n/a	n/a	n/a	n/a	n/a				

CAREER CLUSTER NUMBER: 04			AVG						COMPLT		EST.	
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-	
CAREER FOCUS: Other Production Group (05-12)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY	
Units of Analysis	Occupational Titles											
2420	OES	CLOTHING PRODUCTION (CONT'D)										
	93923	Sewers, Hand	\$ 8.51	60	60	2	11	13				
	93999	All Other Hand Workers	\$ 12.79	20010	24250	4238	5386	9624				
	Total Job Openings For U/A 2420							22636				
	CIP											
	20.0301	Clothing, Apparel & Textile							13	130		
	20.0303	Commercial Garment							0	0		
	20.0399	Clothing, Apparel & Textile Workers & Managers, Other							7	70		
	Total Completers For U/A 2420								200			
	Undersupply										-22436	
2430	OES	TAILORING										
	89505	Custom Tailors & Sewers	\$ 9.06	1380	1250	-130	260	260				
	Total Job Openings For U/A 2430							440				
	CIP											
	20.0305	Custom Tailor							0	0		
	Total Completers For U/A 2430								0			
	Undersupply										-440	
	2450	OES	HOME FURNISHINGS									
		89508	Upholsterers	\$ 10.63	2170	2300	135	447	582			
		92721	Sewing Machine Operators, Non-Garment	\$ 8.60	3810	4270	467	521	988			
93000		Hand Workers, Incl. Assemblers & Fabricators	n/a	n/a	n/a	n/a	n/a	n/a				
93956		Assemblers & Fabricators, Exc. Machine & Electrical	\$ 10.55	69400	78370	8971	12391	21362				
93999		All Other Hand Workers	\$ 12.79	20010	24250	4238	5386	9624				
Total Job Openings For U/A 2450							32556					
CIP												
20.0501		Home Furnishings & Equipment							0	0		
20.0502		Custom Drapery & Window Treatment							0	0		
20.0599	Home Furnishings & Equipment Misc.							8	80			
Total Completers For U/A 2450								80				
Undersupply										-32476		
2630	OES	POWER PLANT OPERATION										
	85118	Machinery Maintenance Mechanics, Water or Power Gen.	\$ 18.17	1510	1550	40	340	380				
	85721	Powerhouse, Substation & Relay Electricians	\$22.58	230	200	-30	64	64				

CAREER CLUSTER NUMBER: 04			AVG				COMPLT	EST.	
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Other Production Group (05-12)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL 1998-2001	TOTAL
Units of Analysis	Occupational Titles								
2630	OES	POWER PLANT OPERATORS (CONT'D)							
	95014	Petroleum Refinery & Control Panel Operators	n/a	560	420	-139	179	179	
	95017	Gaugers	n/a	n/a	n/a	n/a	n/a	n/a	
	95021	Power Generating Plant Operators, Exc. Auxiliary Equip.	\$ 20.43	410	420	4	132	136	
	95023	Auxiliary Equipment Operators, Power	\$ 19.46	n/a	n/a	n/a	n/a	n/a	
	95028	Power Distributors & Dispatchers	\$ 21.48	290	270	-23	92	92	
	95032	Stationary Engineers	\$ 18.49	470	430	-40	100	100	
	95099	All Other Plant & System Operators	\$ 19.90	3720	4150	432	1189	1621	
	95005	Gas Plant Operators	\$ 21.01	150	140	-11	49	49	
	95026	Power Reactor Operators	n/a	n/a	n/a	n/a	n/a	n/a	
			Total Job Openings For U/A 2630					2572	
	CIP								
	47.0501	Stationary Energy Sources Installer & Operator							
								0	0
			Total Completers For U/A 2630					0	
			Undersupply						-2572
2690	OES	UPHOLSTERING							
	89508	Upholsterers	\$ 10.63	2170	2300	135	447	582	
			Total Job Openings For U/A 2690					582	
	CIP								
	48.0303	Upholsterer							
								0	0
			Total Completers For U/A 2690					0	
			Undersupply						-582
2700	OES	LEATHER WORK, SHOEMAKING & REPAIR							
	89511	Shoe & Leather Workers & Repairers, Precision	\$ 11.29	660	160	-507	132	132	
	92723	Shoe Sewing Machine Operators & Tenders	n/a	n/a	n/a	n/a	n/a	n/a	
	93000	Hand Workers, Incl. Assemblers & Fabricators	n/a	n/a	n/a	n/a	n/a	n/a	
	93956	Assemblers & Fabricators, Exc. Machine & Electrical	\$ 10.55	69400	78370	8971	12391	21362	
	93999	All Other Hand Workers	\$ 12.79	20010	24250	4238	5386	9624	
			Total Job Openings For U/A 2700					31118	
	CIP								
	48.0304	Shoe, Boot & Leather Repairer							
								0	0
	48.0399	Leatherworkers & Upholsterers, Other							
								3	30
			Total Completers For U/A 2700					30	
			Undersupply						-31088

CAREER CLUSTER NUMBER: 04			AVG				COMPLT	EST.	
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Other Production Group (05-12)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL 1998-2001	TOTAL
									+/-
									SUPPLY
Units of Analysis	Occupational Titles								
2730	OES	WOODWORKING							
	89302	Pattern & Model Makers, Wood	\$ 16.13	750	760	7	184	191	
	89305	Pattern Makers, Wood	\$ 9.82	120	120	8	28	36	
	89308	Wood Machinists	\$ 17.02	1440	1490	56	164	220	
	89311	Cabinetmakers & Bench Carpenters	\$ 13.63	3200	3590	395	366	761	
	89314	Furniture Finishers	\$ 10.69	1520	1560	40	370	410	
	89399	All Other Precision Woodworkers	\$ 9.82	660	690	25	161	186	
	92302	Sawing Machine Setters & Set-Up Operators	\$ 9.91	290	320	26	86	112	
	92305	Head Sawyers	\$ 9.91	200	220	20	58	78	
	92308	Sawing Machine Operators & Tenders	\$ 9.91	1420	1590	171	416	587	
	92311	Woodworking Machine Setters & Set-Up Operators	\$ 10.58	860	840	-18	200	200	
	92314	Woodworking Machine Operators & Tenders, Exc. Sawing	\$ 10.58	2930	2750	-189	680	680	
	93956	Assemblers & Fabricators, Exc. Machine & Electrical	\$ 11.09	69400	78370	8971	12391	21362	
			Total Job Openings For U/A 2730					24823	
	CIP								
	48.0701	Woodworker, General						0	0
	48.0702	Furniture Designer						4	40
	48.0703	Cabinet Maker						10	100
	48.0799	Woodworkers, Other						10	100
			Total Completers For U/A 2730						240
			Undersupply						-24583
2970	OES	LINE SUPERVISION							
	81000	Blue Collar Worker Supervisors	n/a	n/a	n/a	n/a	n/a	n/a	
			Total Job Openings For U/A 2970					n/a	
	CIP								
	52.0205	Operations Management						603	6030
			Total Completers For U/A 2970						6030
			Oversupply						6030

CAREER CLUSTER NUMBER: 04			AVG				COMPLT		EST.
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Other Production Group (05-12)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	EST. +/-
Units of	Occupational Titles								
Analysis									
D06	OES	MISCELLANEOUS MACHINE OPERATORS							
	89721	Bookbinders	\$ 10.61	60	50	-10	17	17	
	89902	Precision Foundry Mold & Core Makers	\$ 13.10	610	620	14	167	181	
	89905	Precision Mldrs, Shprs, Cstrs & Carvers, Exc. Jewelry	\$ 15.57	280	330	48	78	126	
	91902	Plastic Molding & Casting Machine Strs & SUp Oper.	\$ 11.17	1420	1530	112	352	464	
	91905	Plastic Molding & Casting Machine Oper. & Tenders	\$ 11.17	7290	8320	1027	1817	2844	
	91908	Metal Molding, Core Making & Casting Machine Strs.	\$ 11.17	1200	1360	158	299	457	
	91911	Metal Molding, Core Making & Casting Machine Oper.	\$ 11.17	3010	3590	580	750	1330	
	91914	Foundry Mold Assembly & Shake Out Workers	\$ 12.14	780	810	32	195	227	
	91917	Electrolytic Plating & Coating Mch Setters & SUp Oper.	\$ 12.14	470	500	32	118	150	
	91921	Electrolytic Plating & Coating Mch Oper. & Tndrs M/P	\$ 12.14	910	1000	91	226	317	
	91923	Nonelectrolytic Plating & Coating Mch Setters & SUp	\$ 12.14	70	70	-2	18	18	
	91926	Nonelectrolytic Plating & Coating Mch Oper. & Tndrs	\$ 12.14	230	260	28	57	85	
	91935	Furnace Operators & Tenders	\$ 15.35	1680	1630	-48	263	263	
	91938	Heaters, Metal & Plastic	\$ 15.02	190	160	-28	47	47	
	92525	Bindery Machine Setters & Set-Up Operators	\$ 10.87	840	890	50	144	194	
	92546	Bindery Machine Operators & Tenders	\$ 10.87	1310	1550	242	223	465	
	92705	Textile Mch Oper, & Tndrs, Winding, Twisting, Knitting	\$ 10.94	330	330	-2	56	56	
	92714	Textile Bleaching & Drying Machine Oper. & Tndrs	\$ 9.76	n/a	n/a	n/a	n/a	n/a	
	92911	Tire Building Machine Operators	n/a	370	360	-6	55	55	
	92914	Paper Goods Machine Setters & Set-Up Operators	\$ 12.79	1210	1300	89	257	346	
	92923	Furnace, Kiln,Oven, Drier Or Kettle Operators & Tndrs	\$ 13.58	880	920	46	138	184	
	92928	Cooling & Freezing Equipment Operators & Tenders	\$ 12.86	70	70	2	11	13	
	92938	Chemical Equipment Tenders	\$ 16.05	190	230	44	45	89	
	92941	Cutting & Slicing Machine Operators & Set-Up Oper.	\$ 11.75	690	830	148	165	313	
	92944	Cutting & Slicing Machine Operators & Tenders	\$ 11.75	2400	2680	278	578	856	
	92951	Coating, Painting, & Spraying Mch Setters & SUp Oper.	\$ 10.71	1570	1810	232	343	575	
	92953	Coating, Painting, & Spraying Machine Oper. & Tndrs	\$ 10.71	5040	5890	853	1100	1953	
	92956	Cementing & Gluing Machine Operators & Tenders	\$ 11.09	1220	680	-76	178	178	
	92958	Cleaning, Washing, & Pickling Eqmt Operators & Tndrs	\$ 9.15	840	830	-17	200	200	
	92962	Separating, Filtering, Clarifying, Precipitating, & Still M	\$ 15.42	700	640	-60	166	166	
	92968	Extruding, Forming, Pressing & Compacting Mch Sets	\$ 12.10	2020	2160	142	478	620	
	92971	Extruding, Forming, Pressing & Compacting Mch Opr.	\$ 12.10	3770	3970	208	892	1100	
	92974	Packaging & Filling Machine Operators & Tenders	\$ 9.63	11110	12840	1728	2893	4621	
	92998	All Other Machine Operators & Tenders	\$ 14.71	18920	22720	3799	2757	6556	
			Total Job Openings For U/A D06					25066	

CAREER CLUSTER NUMBER: 04			AVG				COMPLT		EST.	
CAREER CLUSTER: MANUFACTURING & PROCESSING			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Other Production Group (05-12)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of Analysis			Occupational Titles							
D07	OES	MISCELLANEOUS HAND WORKING OCCUPATIONS								
	93105	Machine Builders & Other Precision Machine Assmbls	\$ 15.30	3530	3960	430	861	1291		
	93902	Machine Assemblers	\$ 16.58	2190	2550	363	390	753		
	93921	Pressers, Hand	\$ 8.16	70	80	7	19	26		
	93926	Cutters & Trimmers, Hand	\$ 11.42	2200	2260	60	512	572		
	93928	Portable Machine Cutters	\$ 11.42	n/a	n/a	n/a	n/a	n/a		
	93932	Carpet Cutters, Diagrammers & Seamers	\$ 11.42	n/a	n/a	n/a	n/a	n/a		
	93935	Cannery Workers	\$ 11.05	170	130	-39	43	43		
	93941	Metal Pourers & Casters, Basic Shapes	\$ 15.41	690	620	-69	160	160		
	93947	Painting, Coating, & Decorating Workers	\$ 9.91	1340	1640	299	313	612		
	93953	Grinding & Polishing Workers, Hand	\$ 13.06	4190	4720	531	1129	1660		
			Total Job Openings For U/A D07					5117		
D09	OES	MISCELLANEOUS HELPERS, LBRRS & MTRL. MVRs								
	87905	Blasters & Explosives Workers	n/a	160	120	-40	40	40		
	87908	Rock Splitters, Quarry	n/a	210	270	64	51	115		
	87923	Roof Bolters	\$ 16.97	n/a	n/a	n/a	n/a	n/a		
	87941	Continuous Mining Machine Operators	\$ 24.15	80	70	-5	19	19		
	87949	All Other Mining Machine Operators	\$ 18.26	n/a	n/a	n/a	n/a	n/a		
	87989	All Other Extractive Workers, Except Helpers	n/a	340	320	-18	84	84		
	97932	Loading Machine Operators, Underground Mining	\$ 14.45	130	130	2	24	26		
	97935	Shuttle Car Operators	n/a	n/a	n/a	n/a	n/a	n/a		
	97947	Industrial Truck & Tractor Operators	\$ 12.74	14070	15620	1549	1661	3210		
	97951	Conveyor Operators & Tenders	\$ 12.49	1070	1060	-3	245	245		
	98323	Helpers, Extractive Workers	\$ 12.18	n/a	n/a	n/a	n/a	n/a		
	98502	Machine Feeders & Offbearers	\$ 10.49	7230	7580	345	2182	2527		
	98702	Stevedores, Except Equipment Operators	\$ 9.86	180	190	5	70	75		
	98705	Refuse & Recyclable Material Collectors	\$ 12.82	1660	1680	16	644	660		
	98799	All Other Freight, Stock & Material Movers, Hand	\$ 9.86	25180	24990	-189	9223	9223		
	98902	Hand Packers & Packagers	\$ 8.68	25560	29720	4155	6317	10472		
	98905	Vehicle Washers & Equipment Cleaners	\$ 8.45	6570	7640	1071	2072	3143		
	98999	All Other Helpers, Laborers & Material Movers, Hand	\$ 9.70	38750	44460	5706	11996	17702		
			Total Job Openings For U/A D09					47541		

CAREER CLUSTER NUMBER: 04	AVG						COMPLT	EST.	
CAREER CLUSTER: MANUFACTURING & PROCESSING	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Other Production Group (05-12)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
D10	OES	BLUE COLLAR WORKER SUPERVISOR							
	81005	First Line Suprv & Mgrs/Suprv - Construction Trades	\$ 21.65	11480	13970	2490	3057	5547	
	81011	First Line Suprv & Mgrs/Suprv - Transportation	\$ 19.72	4260	4680	417	1095	1512	
	81017	First Line Suprv & Mgrs/Suprv - Helpers, Laborers	\$ 19.32	3830	4390	565	1019	1584	
	81099	All Other First Line Suprv & Mgrs/Suprv - Production, Construction, Maintenance, & Related Workers	\$ 19.35	6120	6840	716	1629	2345	

Total Job Openings For U/A D10	10988
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MANUFACTURING & PROCESSING - 04 SUMMARY		OVER	UNDER	BALANCE
Units of Analysis With Oversupply:	2680, 2970	7461		
Units of Analysis With Undersupply:	2240, 2681, 2682, 2683, 1540, 2710, 2711, 1682, 2380, 2420, 2430, 2450, 2630, 2690, 2730, D06, D07, D09		-118121	
Career Cluster Balance:	Undersupply			-110660

CAREER CLUSTER NUMBER: 05		AVG						COMPLT	EST.	
CAREER CLUSTER: MECHANICAL REPAIR & PRECISION CRAFTS		1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Appliance/Light Equip/Instr. Repair Grp (03-06)		WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis	Occupational Titles									
1240	OES	ELECTROMECHANICAL EQUIP/INSTR PROD REPAIR								
	83002	Precision Inspectors, Testers & Graders	\$ 13.41	5260	4830	-433	1086	1086		
	85799	All Other Electrical/Electronic Equipment Mechanic	\$ 16.04	1690	1990	304	446	750		
	85905	Precision Instrument Repairers	\$ 14.85	790	760	-22	199	199		
	85928	Mechanical Control & Valve Installers & Repairers	\$ 19.35	290	290	2	74	76		
	93111	Electromechanical Equipment Assemblers, Precision	\$ 13.90	1170	1130	-31	254	254		
		Total Job Openings For U/A 1240					2365			
	CIP									
	15.0403	Electromechanical Technology/Technician						0	0	
	15.0404	Instrumentation Technology/Technician						3	30	
	15.0405	Robotics Technology/Technician						93	930	
	15.0499	Electromechanical Instru. & Maintenance Tech.						1	10	
	47.0401	Instrument Calibration & Repairer						0	0	
		Total Completers For U/A 1240							970	
		Undersupply								-1395
1250	OES	AIR CONDITIONING/HEATING INSTALLATION REPAIR								
	85902	Heating, A/C & Refrigeration Mechanics/Installers	\$ 15.04	7250	9180	1930	1339	3269		
	87805	Sheet Metal Duct Installers	n/a	680	880	200	174	374		
	89132	Sheet Metal Workers	\$ 16.65	5980	6990	1017	1453	2470		
		Total Job Openings For U/A 1250					6113			
	CIP									
	15.0501	Heating, AC & Refrigeration Technology/Technician						0	0	
	47.0201	Heating, AC & Refrigeration Mechanic & Repairer						61	610	
		Total Completers For U/A 1250							610	
		Undersupply								-5503
1460	OES	APPLIANCE/EQUIPMENT REPAIRER								
	85711	Electric Home Appliance & Power Tool Repairers	\$ 16.67	540	610	71	159	230		
	85714	Electric Motor, Transformer & Related Repairers	\$ 19.88	680	550	-134	180	180		
	85944	Gas Appliance Repairers	\$ 16.16	470	450	-20	137	137		
	85947	Coin & Vending Machine Servicers & Repairers	\$ 11.86	510	410	-94	113	113		
		Total Job Openings For U/A 1460					660			

CAREER CLUSTER NUMBER: 05			AVG					COMPLT		EST.
CAREER CLUSTER: MECHANICAL REPAIR & PRECISION CRAFTS			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Appliance/Light Equip/Instr. Repair Grp (03-06)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of Analysis	Occupational Titles									
1460	CIP	APPLIANCE/EQUIPMENT REPAIRER (CONT'D)								
	47.0101	Electrical & Electronics Equip. Installer & Rpr., Gen.						197		1970
	47.0106	Major Appliance Installer & Repairer						0		0
	47.0199	Electrical & Electronics Equip. Installer & Rpr, Other						26		260
	47.0499	Miscellaneous Mechanics & Repairers, Other						32		320
			Total Completers For U/A 1460						2550	
			Oversupply							1890
1470	OES	COMPUTER/BUSINESS MACHINE PROD./REPAIRERS								
	85705	Data Processing Equipment Repairers	\$ 14.01	1060	1520	457	151	608		
	85717	Electronics Repairers, Commercial & Industrial Equip.	\$ 17.46	1280	1480	192	362	554		
	85926	Office Machine & Cash Register Servicers	\$ 14.01	1240	1380	144	264	408		
	92902	Electronic Semiconductor Processors	n/a	n/a	n/a	n/a	n/a	n/a		
	93114	Electrical & Electronic Equipment Assemblers, Prec.	\$ 12.45	6360	6780	425	1386	1811		
	93905	Electrical & Electronic Assemblers	\$ 12.73	8200	7760	-436	1463	1463		
	93908	Coil Winders, Tapers & Finishers	\$ 9.27	780	630	-158	140	140		
			Total Job Openings For U/A 1470						4984	
	CIP									
	15.0402	Computer Maintenance Technology/Technician						0		0
	47.0102	Business Machine Repairer						0		0
	47.0104	Computer Installer & Repairer						86		860
	47.0105	Industrial Electronics Installer & Repairer						56		560
			Total Completers For U/A 1470						1420	
			Undersupply							-3564
1490	OES	MUSIC INSTRUMENT REPAIR								
	85921	Musical Instrument Repairers & Tuners	\$ 12.84	490	540	59	123	182		
			Total Job Openings For U/A 1490						182	
	47.0404	Musical Instrument Repairer						1		10
			Total Completers For U/A 1490						10	
			Undersupply							-172

CAREER CLUSTER NUMBER: 05			AVG				COMPLT		EST.		
CAREER CLUSTER: MECHANICAL REPAIR & PRECISION CRAFTS			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-	
CAREER FOCUS: Appliance/Light Equip/Instr. Repair Grp (03-06)			WAGES	EMPL	EMPL	GROWTH	REPLACENT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis			Occupational Titles								
1500	OES	JEWELRY & WATCH REPAIR									
	85917	Watchmakers	n/a	90	80	-11	22	22			
	89123	Jewelers & Silversmiths	\$ 13.78	840	840	1	204	205			
	89126	Precision Hand Workers	\$ 13.78	180	190	6	44	50			
	89128	Precision Etchers & Engravers	\$ 10.14	160	170	6	39	45			
	89199	All Other Precision Metal Workers	\$ 17.14	1340	1320	-14	326	326			
	89908	Precision Patternmakers, Model Makers, Lay-Out Workers	\$ 14.71	220	230	5	62	67			
	89926	Gem & Diamond Workers	\$ 13.78	n/a	n/a	n/a	n/a	n/a			
	89999	All Other Precision Workers	\$ 14.71	2000	2310	311	534	845			
	91117	Machine Tool Cutting Operators & Tnds, Mtl/Plastics	\$ 12.66	5730	5360	-370	1448	1448			
	93117	Watch, Clock & Chronometer Asmblers, Adj., & Calibr.	\$ 12.84	n/a	n/a	n/a	n/a	n/a			
			Total Job Openings For U/A 1500						3008		
CIP											
	47.0408	Watch, Clock & Jewelry Repairer							0	0	
	48.0300	Shoe, Boot and Leather Repairer							0	0	
	48.0700	Woodworker, General							0	0	
			Total Completers For U/A 1500							0	
			Undersupply								-3008
2360	OES	MEDICAL EQUIPMENT REPAIR									
	85908	Electromedical & Biomedical Equipment Repairers	\$ 16.76	210	240	30	48	78			
			Total Job Openings For U/A 2360						78		
CIP											
	15.0401	Biomedical Engineering Related Technology/Tech.							6	60	
			Total Completers For U/A 2360							60	
			Undersupply								-18
2600	OES	BUILDING MAINTENANCE									
	85132	Maintenance Repairers, General Utility	\$ 13.09	26560	28220	1661	5940	7601			
	85938	Installers & Repairers, Manufactured Buildings, Mobile Hms	\$ 12.49	2050	2610	564	458	1022			
	85999	All Other Mechanics, Installers & Repairers	\$ 14.34	7660	8620	962	1665	2297			
	92926	Boiler Operators & Tenders, Low Pressure	\$ 18.49	740	670	-62	157	157			
	95032	Stationary Engineers	\$ 18.49	470	430	-40	100	100			
			Total Job Openings For U/A 2600						11177		
CIP											
	46.0401	Building/Property Maintenance & Manager							20	200	
			Total Completers For U/A 2600							200	
			Undersupply								-10977

CAREER CLUSTER NUMBER: 05			AVG				COMPLT	EST.	
CAREER CLUSTER: MECHANICAL REPAIR & PRECISION CRAFTS			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Engine And Heavy Equipment Repair Group (03-07)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	+/-
								1998-2001	TOTAL
Units of Analysis			Occupational Titles						
1510	OES	AUTOMOBILE MECHANICS							
	85302	Automotive Mechanics	\$ 13.83	17680	20880	3202	4394	7596	
	85728	Electrical Installers & Repairers, Transportation Equipment	\$ 15.70	670	770	99	176	275	
	85953	Tire Changers & Repairers	\$ 9.53	2300	2540	235	1010	1245	
			Total Job Openings For U/A 1510					9116	
	CIP								
	15.0803	Automotive Engineering Technology/Technician						12	120
	47.0604	Auto/Automotive Mechanic/Technician						1029	10290
	47.0699	Vehicle & Mobile Equipment Mechanics & Repairers						79	790
	47.9999	Mechanics & Repairers, Other						35	350
			Total Completers For U/A 1510						11550
			Oversupply						2434
1520	OES	AIRCRAFT MECHANICS							
	85323	Aircraft Mechanics	\$ 20.62	1470	1880	414	292	706	
	85326	Aircraft Engine Specialists	\$ 20.62	1730	2220	493	344	837	
	85728	Electrical Installers & Repairers, Transportation Equip.	\$ 15.70	670	770	99	176	275	
	93102	Aircraft Structure, Surfaces, Rigging & Systems Assembly	\$ 16.48	n/a	n/a	n/a	n/a	n/a	
			Total Job Openings For U/A 1520					1818	
	CIP								
	47.0607	Aircraft Mechanics/Technician, Airframe						5	50
	47.0608	Aircraft Mechanics/Technician, Powerplant						20	200
	47.0609	Aviation Sys & Avionics Maintenance Technology/Tech						0	0
			Total Completers For U/A 1520						250
			Undersupply						-1568
2020	OES	AGRICULTURAL MECHANICS							
	79021	Farm Equipment Operators	\$ 12.54	120	130	10	37	47	
	85321	Farm Equipment Mechanics	\$ 11.89	1260	1280	22	328	350	
			Total Job Openings For U/A 2020					397	
	CIP								
	01.0201	Agricultural Mechanization, General						1422	14220
	01.0204	Agricultural Power Machinery Operator						0	0
	01.0299	Agricultural Mechanization, Other						27	270
			Total Completers For U/A 2020						14490
			Oversupply						14093

CAREER CLUSTER NUMBER: 05			AVG						COMPLT	EST.
CAREER CLUSTER: MECHANICAL REPAIR & PRECISION CRAFTS			1999	1998	2008	JOB	OPENINGS		3YR AVG	+
CAREER FOCUS: Engine And Heavy Equipment Repair Group (03-07)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	SUPPLY
Units of Analysis	Occupational Titles									
2610	OES	HEAVY EQUIPMENT REPAIR								
	83008	Transportation Inspectors	\$ 20.18	600	690	90	110	200		
	85314	Mobile Heavy Equipment Mechanics, Except Engines	\$ 16.34	2740	2980	239	715	954		
	85317	Rail Car Repairers	n/a	380	360	-18	98	98		
		Total Job Openings For U/A 2610						1252		
	CIP									
	47.0302	Heavy Equipment Maintenance & Repairer							0	0
		Total Completers For U/A 2610								0
		Undersupply								-1252
2620	OES	INDUSTRIAL MACHINERY REPAIR								
	85110	Industrial Machinery Mechanics	n/a	12870	13860	985	2896	3881		
	85112	Machinery Maintenance Mechanics, Textile Machines	\$ 18.17	n/a	n/a	n/a	n/a	n/a		
	85113	Machinery Maintenance Mechanics, Sewing Machines	\$ 18.17	60	60	0	14	14		
	85117	Underground Mine Machinery Mechanics	\$ 18.17	n/a	n/a	n/a	n/a	n/a		
	85119	All Other Machinery Maintenance Mechanics	\$ 15.08	2360	2250	-103	530	530		
	85123	Millwrights	\$ 20.21	4370	4530	168	1185	1353		
	85128	Machinery Maintenance Workers	\$ 16.03	3380	3830	450	759	1209		
	85932	Elevator Installers & Repairers	\$ 28.20	300	700	95	77	172		
	87921	Roustabouts	\$ 10.76	n/a	n/a	n/a	n/a	n/a		
	92702	Textile Machine Setters & Set-Up Operators	\$ 10.94	n/a	n/a	n/a	n/a	n/a		
	92997	All Other Machine Setters & Set-Up Operators	\$ 14.71	5930	6990	1058	864	1922		
	98102	Helpers, Mechanics & Repairers	\$ 10.45	5060	5770	716	2285	3001		
		Total Job Openings For U/A 2620						12082		
	CIP									
	47.0303	Industrial Machinery Maintenance & Repairer							182	1820
	47.0399	Industrial Equipment Maintenance & Repairers, Other							21	210
		Total Completers For U/A 2620								2030
		Undersupply								-10052
2640	OES	AUTOMOBILE BODY REPAIR								
	85305	Automotive Body & Related Repairers	\$ 14.24	5360	6240	877	1567	2444		
	92947	Painters, Transportation Equipment	\$ 15.75	1700	1970	275	370	645		
		Total Job Openings For U/A 2640						3089		

CAREER CLUSTER NUMBER: 05							AVG	COMPLT	EST.
CAREER CLUSTER: MECHANICAL REPAIR & PRECISION CRAFTS							1999	3YR AVG	+/-
CAREER FOCUS: Engine And Heavy Equipment Repair Group (03-07)							WAGES	TOTAL	SUPPLY
Units of Analysis	Occupational Titles								
2640	CIP	AUTOMOBILE BODY REPAIR (CONT'D)							
	47.0603	Auto/Automotive Body Repairer					284	2840	
Total Completers For U/A 2640								2840	
Undersupply									-249
2650	OES	DIESEL ENGINE REPAIR							
	85311	Bus & Truck Mechanics & Diesel Engine Specialists	\$ 14.47	7220	7880	659	1582	2241	
Total Job Openings For U/A 2650								2241	
	CIP								
	47.0605	Diesel Engine Mechanics & Repairer					88	880	
Total Completers For U/A 2650								880	
Undersupply									-1361
2660	OES	SMALL ENGINE REPAIR							
	85308	Motorcycle Repairers	\$ 12.91	420	440	25	107	132	
	85328	Small Engine Specialists	\$ 11.87	1190	1220	32	306	338	
Total Job Openings For U/A 2660								470	
	CIP								
	47.0606	Small Engine Mechanic & Repairer					47	470	
	47.0611	Motorcycle Mechanic & Repairer					0	0	
Total Completers For U/A 2660								470	
Supply									0
2670	OES	BICYCLE REPAIR							
	85951	Bicycle Repairers	\$ 8.24	n/a	n/a	n/a	n/a	n/a	
Total Job Openings For U/A 2670								0	
	CIP								
	47.0610	Bicycle Mechanic & Repairer					0	0	
Total Completers For U/A 2670								0	
Supply									0

CAREER CLUSTER NUMBER: 05	AVG						COMPLT	EST.	
CAREER CLUSTER: MECHANICAL REPAIR & PRECISION CRAFTS	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Engine And Heavy Equipment Repair Group (03-07)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of
Analysis

Occupational Titles

2780	OES	MARINE MAINTENANCE/REPAIR							
85116		Machinery Maintenance Mechanics, Marine Equipment	\$ 15.08	270	360	93	60	153	
85935		Riggers	\$ 12.87	180	170	-9	40	40	
87102		Carpenters	\$ 16.21	27990	32480	4492	7494	11986	
87202		Electricians	\$ 20.45	19010	21340	2327	3891	6218	
89121		Shipfitters	\$ 13.23	n/a	n/a	n/a	n/a	n/a	
97521		Ship Engineers	n/a	270	390	123	103	226	
Total Job Openings For U/A 2780							18623		

CIP

49.0306 Marine Maintenance & Ship Repairer

6 60

Total Completers For U/A 2780	60	
Undersupply		-18563

MECHANICAL REPAIR & PRECISION CRAFTS - 05	OVER	UNDER	BALANCE
Units of Analysis With Oversupply:	1460, 1510, 2020	4324	
Units of Analysis With Undersupply:	1240, 1250, 1470, 1490, 1500, 1520, 2360, 2600, 2610, 2620, 2650, 2670, 2780	-57682	
Career Cluster Balance:	Undersupply		-53358

CAREER CLUSTER NUMBER: 06			AVG									
CAREER CLUSTER: BUSINESS, MANAGEMENT & FINANCE					1998	2008		OPENINGS	3YR AVG		EST.	EST.
CAREER FOCUS: Management Group (11-29)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	+/-	SUPPLY
Units of Analysis	Occupational Titles											
2290	OES	FOOD SERVICE & LODGING MANAGEMENT										
	15026	Food Service & Lodging Managers	\$ 14.53	13320		1029	2332					
			Total Job Openings For U/A 2290									
	CIP											
	52.0901	Hotel/Motel & Restaurant Management										
			Total Completers For U/A 2290									
			Undersupply									
2560	OES											
	13008	Purchasing Managers	24.25	3760	4000		844	1092				
		Administrative Services Managers	\$19.41	7150	8100	948	1252	2200				
	15002	Postmasters & Mail Superintendents	\$ 21.60	620		44	110					
	15014	Industrial Production Managers	29.19	7020	7350		1229	1561				
		Communications, Transportation & Utilities Managers	\$25.26	3550	3920	372	622	994				
	19002	Public Adm. Chief Exec., Legislators & Gen. Adm.	\$ 31.94	1610			403	403				
		General Managers & Top Executives	\$41.51	56650	65170	8521	9923	18444				
	19999	All Other Managers & Administrators	\$ 18.71	31830		1208	5608					
	21905	Management Analysts	23.73	3570	4730		281	1445				
			Total Job Openings For U/A 2560									
			33109									
	CIP											
	43.0103	Criminal Justice/Law Enforcement Administration										
	44.0201	Community Organization, Resources & Services										
	44.0401	Public Administration										
	44.0501	Public Policy Analysis										
	44.9999	Public Adminstration & Services, Other										
	50.0704	Arts Management										
			Total Job Openings For U/A 2560									
			Undersupply									
2890	OES	MEDICAL SERVICES MANAGEMENT										
	15008	Medicine & Health Service Managers	\$	4910	6650	1744	872	2616				
			Total Job Openings For U/A 2890									
			2616									

CAREER CLUSTER NUMBER: 06	AVG						COMPLT		EST.
CAREER CLUSTER: BUSINESS, MANAGEMENT & FINANCE	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Management Group (11-29)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Occupational Titles

Analysis

2890	CIP	MEDICAL SERVICES MANAGEMENT (CONT'D)							
	51.0701	Health System/Health Services Administration					32	320	
	51.0702	Hospital/Health Facilities Administration					0	0	
	51.0704	Health Unit Manager/Ward Supervisor					0	0	
	51.0706	Medical Records Administration					18	180	
	51.0799	Health & Medical Administrative Services, Other					13	130	
	51.1602	Nursing Administration, (Post-R.N.)					5	50	
	51.2201	Public Health, General					95	950	
Total Completers For U/A 2890								1630	
Undersupply									-986

2950 OES BUSINESS MANAGEMENT & ADMINISTRATION

13008	Purchasing Managers	\$ 24.45	3760	4000	248	844	1092
13014	Administrative Services Managers	\$ 19.40	7150	8100	948	1252	2200
15014	Industrial Production Managers	\$ 29.19	7020	7350	332	1229	1561
15023	Communications, Transportation & Utilities Managers	\$ 25.26	3550	3920	372	622	994
19005	General Managers & Top Executives	\$ 41.51	56650	65170	8521	9923	18444
19999	All Other Managers & Administrators	\$ 18.71	31830	33040	1208	5608	6816
21905	Management Analysts	\$ 23.73	3570	4730	1164	281	1445
81002	First-Line Suprvs & Mgrs-Mechanics, Installers	\$ 20.42	11360	12720	1362	3365	4727
81008	First-Line Suprvs & Mgrs-Production & Oper Wrks	\$ 18.65	24530	25890	1359	6877	8236

Total Job Openings For U/A 2950 45515

CIP

08.0301	Entrepreneurship						163	1630
52.0101	Business, General						3125	31250
52.0201	Business Administration & Management, General						1252	12520
52.0202	Purchasing, Procurement & Contracts Management						0	0
52.0203	Logistics & Materials Management						0	0
52.0205	Operations Management & Supervision						603	6030
52.0206	Nonprofit & Public Management						0	0
52.0299	Business Administration & Management, Other						247	2470
52.0701	Enterprise Management & Operation, General						0	0

CAREER CLUSTER NUMBER: 06			AVG					COMPLT	EST.
CAREER CLUSTER: BUSINESS, MANAGEMENT & FINANCE			1999	1998	2008	JOB		3YR AVG	+/-
CAREER FOCUS: Management Group (11-29)				EMPL	EMPL		REPLACEMT	TOTAL	SUPPLY
Analysis	Occupational Titles								
	CIP	BUSINESS MANAGEMENT & ADMINISTRATION (CONT'D)							
		Franchise Operation						0	
	52.0799	Enterprise Management & Operation, General							0
	52.0903							0	0
		Hospitality Services Management, Other						62	
	52.1101	International Business							0
	52.9999							375	3750
	Total Completers For U/A 2950								58270
	Oversupply								12755
3020	OES	PERSONNEL MANAGEMENT							
	13005	Personnel, Training & Labor Relations Managers		5320	6210		1246	2137	
		Employment Interviewers, Private or Public Emplmnt	\$13.74	750	920	169	199	368	
	21511	Personnel, Training & Labor Relations Specialists	\$ 17.74	7980		1170	2126		
	Total Job Openings For U/A 3020								
	CIP								
	52.1001							33	330
		Labor/Personnel Relations & Studies						31	
	52.1003	Organizational Behavior Studies							0
	52.1099							0	0
Total Completers For U/A 3020								640	
Undersupply								-5161	
D01	OES	MISCELLANEOUS MGMT & MGMT SUPPORT							
	13017	Engineering, Mathematical & Natural Science Mgrs.	\$	7110	9430	2322	1245	3567	
	15017	Construction Managers	\$ 29.26	5690		1389	997		
	21502	Claims Takers, Unemployment Benefits	11.59	600	520	-78	138	138	
	21911	Compliance Officers & Enfmnt Inspectors, Exc. Const.	\$ 21.31	2120		175	385		
	21914	Tax Examiners, Collectors, & Revenue Agents	18.18	710	720		154	172	
		Assessors	\$13.21	930	980	56	214	270	
	21999	All Other Management Support Workers	\$ 17.82	12690		1756	2403		
	Total Job Openings For U/A D01								

CAREER CLUSTER NUMBER: 06	AVG					COMPLT	EST.		
CAREER CLUSTER: BUSINESS, MANAGEMENT & FINANCE	1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-	
CAREER FOCUS: Finance Group (11-30)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

[illegible]

CAREER CLUSTER NUMBER: 06			AVG						COMPLT	EST.	
CAREER CLUSTER: BUSINESS, MANAGEMENT & FINANCE			1999	1998	2008	JOB	OPENINGS		3YR AVG		+/-
CAREER FOCUS: Secretarial/Steno Group (12-31)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis	Occupational Titles										
1620	OES	STENOGRAPHY									
	53702	Court Clerks	\$ 10.35	800	850	50	128	178			
	55302	Stenographers	\$ 11.69	1670	1740	73	272	345			
Total Job Openings For U/A 1620								523			
	CIP										
	51.0708	Medical Transcription							0	0	
	52.0405	Court Reporter							0	0	
Total Completers For U/A 1620										0	
Undersupply											-523
1860	OES	SECRETARIAL									
	53705	Municipal Clerks	\$ 10.35	580	610	36	93	129			
	55100	Secretaries	\$ 12.01	n/a	n/a	n/a	n/a	n/a			
	55199	All Other Secretaries	n/a	n/a	n/a	n/a	n/a	n/a			
Total Job Openings For U/A 1860								129			
	CIP										
	52.0401	Administrative Assistant/Secretarial Science							352	3520	
	52.0402	Executive Administrative Assistant/Secretary							55	550	
	52.0499	Administrative & Secretarial Services, Other							231	2310	
Total Completers For U/A 1860										6380	
Oversupply											6251
1861	OES	LEGAL SECRETARY/MEDICAL SECRETARY									
	55102	Legal Secretaries	\$ 12.27	4160	4910	746	679	1425			
	55105	Medical Secretaries	\$ 10.56	5190	5930	739	847	1586			
Total Job Openings For U/A 1861								3011			
	CIP										
	52.0403	Legal Administrative Assistant/Secretary							0	0	
	52.0404	Medical Administrative Assistant/Secretary							8	80	
Total Completers For U/A 1861										80	
Undersupply											-2931

CAREER CLUSTER NUMBER: 06	AVG						COMPLT	EST.	
CAREER CLUSTER: BUSINESS, MANAGEMENT & FINANCE	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Other Clerical Group (12-32)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
1610	OES	MEDICAL RECORDS							
	32911	Medical Records Technicians	\$	10.46	2610	3760	1147	646	1793
					Total Job Openings For U/A 1610				1350
	CIP								
	51.0707	Medical Records Technology/Technicians						32	320
					Total Completers For U/A 1610				605
					Undersupply				-1473
2900	OES	HEALTH UNIT COORDINATING							
	55305	Receptionists & Information Clerks	\$	8.78	24250	29830	5582	4642	10224
					Total Job Openings For U/A 2900				10224
	CIP								
	51.0703	Health Unit Coordinator/Ward Clerk						0	0
					Total Completers For U/A 2900				0
					Undersupply				-10224
2960	OES	CLERICAL SUPERVISION							
	51002	First-Line Supervisors & Managers/Suprv Clerical	\$	12.02	27050	31600	4555	6088	10643
					Total Job Openings For U/A 2960				12490
	CIP								
	52.0204	Office Supervision & Management						42	420
					Total Completers For U/A 2960				242
					Undersupply				-10223
2980	OES	BOOKKEEPING							
	21111	Tax Preparers	\$	13.44	1150	1440	293	251	544
	53126	Statement Clerks	\$	10.87	540	420	-122	70	70
	53128	Brokerage Clerks	\$	12.08	680	890	215	88	303
	55328	Statistical Clerks	n/a		1680	1380	-301	227	227
	55338	Bookkeeping, Accounting, & Auditing Clerks	\$	11.01	39140	37450	-1687	7305	7305
	55341	Payroll & Timekeeping Clerks	\$	12.22	3820	3460	-359	759	759
	56002	Billing, Posting & Calculating Machine Operators	\$	10.87	1780	1710	-68	352	352
					Total Job Openings For U/A 2978				9560

CAREER CLUSTER NUMBER: 06	AVG						COMPLT	EST.	
CAREER CLUSTER: BUSINESS, MANAGEMENT & FINANCE	1996	1994	2005	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Other Clerical Group (12-32)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1994-97	TOTAL	SUPPLY

Units of Occupational Titles

Analysis

2980	CIP	BOOKKEEPING (CONT'D)							
	52.0302	Accounting Technician					379	3790	
	52.0399	Accounting, Other					76	760	
Total Completers For U/A 2980								4550	
Undersupply									-5010

2990	OES	OFFICE CLERICAL							
	53123	Adjustment Clerks	\$ 11.34	11420	14100	2682	742	3424	
	53311	Insurance Claim Clerks	\$ 14.50	3370	3950	572	562	1134	
	53314	Insurance Policy Processing Clerks	\$ 14.50	4380	4780	403	567	970	
	53505	Investigators, Clerical	n/a	290	370	84	19	103	
	53708	License Clerks	\$ 10.35	190	210	14	31	45	
	53914	Real Estate Clerks	\$ 9.11	820	1080	255	228	483	
	55305	Receptionists & Information Clerks	\$ 8.78	24250	29830	5582	4642	10224	
	55308	Typists Including Word Processing	n/a	n/a	n/a	n/a	n/a	n/a	
	55311	Typists, Word Processing Equipment	n/a	n/a	n/a	n/a	n/a	n/a	
	55314	Personnel Clerks, Except Payroll & Timekeeping	\$ 11.94	2860	2770	-86	540	540	
	55317	Correspondence Clerks	\$ 10.79	540	590	49	129	178	
	55321	File Clerks	\$ 8.05	4370	4810	432	1520	1952	
	55323	Order Clerks, Materials, Merchandise & Service	\$ 10.83	8060	8020	-37	1927	1927	
	55326	Procurement Clerks	\$ 11.15	1590	1420	-169	240	240	
	55332	Interviewing Clks, Exc. Personnel & Social Worker	\$ 9.34	2200	2410	203	709	912	
	55335	Customer Service Representatives, Utilities	\$ 11.36	4450	4680	226	1064	1290	
	55344	Billing, Cost & Rate Clerks	\$ 10.87	8820	9730	908	1752	2660	
	55347	General Office Clerks	\$ 9.11	66010	76390	10379	18277	28656	
	56005	Duplicating Machine Operators	\$ 9.50	1130	1300	169	333	502	
	56008	Mail Machine Operators, Preparation & Handling	\$ 10.14	1210	1400	193	257	550	
	56099	All Other Office Machine Operators	\$ 9.50	2240	2220	-19	660	660	
	57102	Switchboard Operators	\$ 8.67	4150	3440	-708	902	902	
	57302	Mail Clerks, Exc Mail Machine Opr.& Postal Serv.	\$ 10.14	2400	2550	156	567	723	
	57308	Postal Service Clerks	\$ 18.39	1120	1240	123	182	305	
	58011	Transportation Agents	\$ 11.83	n/a	n/a	n/a	n/a	n/a	

CAREER CLUSTER NUMBER: 06				COMPLT		EST.
CAREER FOCUS: Other Clerical Group (12-32)				1999	1998 EMPL	EST. TOTAL
Units of Analysis				JOB GROWTH		OPENINGS TOTAL
OES						
58017				\$	1340	35
	Marking Clerks			8.80	500	450
58023				\$	17430	2493
	Order Fillers, Wholesale & Retail Clerks			8.80	4500	5220
58028	Traffic, Shipping & Receiving Clerks			\$	10.55	23960
58099				n/a	4770	4950
59999	All Other Clerical & Administrative Support Workers				10960	1212
						2978
						Total Job Openings For U/A 2990
CIP						
	Receptionist					0
	General Office/Clerical & Typing Services					4350
	Business Management					3750
						Total Completers For U/A 2990
						Undersupply
						-66707
OES						
56017				\$	8330	196
CIP						832
						470
	Information Processing/Data Entry Technician					5900
						Total Completers For U/A 3000
						Oversupply
3010	BANKING SUPPORT SERVICES					
	Tellers			12.02	15270	14530
53105				\$	1950	316
	Transit Clerks			9.50	420	300
53111				11.56	440	-44
	Credit Authorizers			11.63	170	170
53117	Credit Checkers			\$	11.63	540
53121				\$	3930	559
	Bill & Account Collectors			10.20	5260	6910
						11752

CAREER CLUSTER NUMBER: 06				AVG				COMPLT			
CAREER CLUSTER: BUSINESS, MANAGEMENT & FINANCE				WAGES	EMPL	2005	JOB	OPENINGS	3YR AVG	EST.	
CAREER FOCUS: Other Clerical Group (12-32)				1999	1998	2008	GROWTH	REPLACEMT	TOTAL	TOTAL	
										EST. +/- SUPPLY	
Units of Analysis		Occupational Titles									
3010	CIP	BANKING SUPPORT SERVICES (CONT'D)									
	52.0803	Banking & Financial Support Services									
									0	0	
Total Completers For U/A 3010									0		
Undersupply									-11752		
3030	OES	COMPUTER OPERATION									
	56011	Computer Operators, Except Peripheral Equipment									
	56014	Peripheral EDP Operators									
				\$ 12.80	3690	2750	-935	523	523		
				\$ 12.80	240	140	-101	34	34		
Total Job Openings For U/A 3030									557		
	CIP										
	52.1205	Business Computer Facilities Operator									
									0	0	
Total Completers For U/A 3030									0		
Undersupply									-557		
D03	OES	MISCELLANEOUS ADM. SUPPORT OCCUPATIONS									
	57105	Directory Assistance Operators									
	57108	Central Office Operators									
	57111	Telegraph & Teletype Operators									
	57199	All Other Communication Equipment Operators									
	57305	Postal Mail Carriers									
	57311	Messengers									
	58002	Dispatchers, Police, Fire & Ambulance									
	58005	Dispatchers, Except Police, Fire & Ambulance									
	58008	Production, Planning & Expediting Clerks									
	58014	Meter Readers, Utilities									
				n/a	140	80	-61	30	30		
				n/a	n/a	n/a	n/a	n/a	n/a		
				11.48	n/a	n/a	n/a	n/a	n/a		
				\$ 11.23	170	130	-44	38	38		
				\$ 17.27	6900	7700	807	1937	2744		
				\$ 7.80	1340	1600	252	318	570		
				\$ 10.39	n/a	n/a	n/a	n/a	n/a		
				\$ 15.20	4890	5390	499	795	795		
				\$ 15.12	6920	6790	-127	814	814		
				\$ 11.63	1410	1330	-80	356	356		
Total Job Openings For U/A D03									5347		
Undersupply									-5347		
BUSINESS, MANAGEMENT, & FINANCE - 06									OVER	UNDER	BALANCE
Units of Analysis With Oversupply:				1860, 3000, 2950					24074		
Units of Analysis With Undersupply:				1610, 1620, 1850, 1860, 1861, 2130, 2290, 2890, 2900, 2960, 2980, 2990, 3010, 3020, 3030							-142651
Career Cluster Balance:				Undersupply							-118577

CAREER CLUSTER NUMBER: 07			AVG					COMPLT	EST.
CAREER CLUSTER: BUILDING & CONSTRUCTION			1999	1998	2008	JOB	OPENINGS	3YR AVG	+/-
CAREER FOCUS: Construction Group (04-09)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	SUPPLY
Units of Analysis	Occupational Titles								
1410	OES	BRICKLAYING							
	87302	Brick Masons	\$ 18.00	4300	5260	953	880	1833	
	87305	Stone Masons	n/a	330	420	82	68	150	
	87308	Hard Tile Setters	n/a	430	520	88	111	199	
	98311	Helpers, Brick & Stonemasons & Hard Tile Setters	\$ 12.13	1510	1780	275	695	970	
	Total Job Openings For U/A 1410							3152	
	CIP								
	46.0101	Mason & Tile Setter						33	330
	Total Completers For U/A 1410							330	
	Undersupply								-2822
1420	OES	CARPENTRY							
	87102	Carpenters	\$ 14.09	27990	32480	4492	7494	11986	
	87105	Ceiling Tile Installers & Acoustical Carpenters	n/a	n/a	n/a	n/a	n/a	n/a	
	87121	Brattice Builders	n/a	n/a	n/a	n/a	n/a	n/a	
	98312	Helpers, Carpenters & Related Workers	\$ 10.07	5660	6940	1279	2608	3887	
	Total Job Openings For U/A 1420							15873	
	CIP								
	46.0201	Carpenters						900	9000
	Total Completers For U/A 1420							9000	
	Undersupply								-6873
1430	OES	ELECTRICAL POWER							
	85511	Signal or Track Switch Maintainers	n/a	n/a	n/a	n/a	n/a	n/a	
	85723	Electrical Power-Line Installers & Repairers	\$ 19.70	2120	2040	-78	495	495	
	85911	Electric Meter Installers & Repairers	\$ 18.62	330	320	-11	83	83	
	87202	Electricians	\$ 17.68	19010	21340	2327	3891	6218	
	98313	Helpers, Electricians & Power-Ln Trans. Instlrs	\$ 9.45	1440	1430	-13	665	665	
	Total Job Openings For U/A 1430							7461	
	CIP								
	46.0301	Electrical & Power Transmission Installer, General						0	0
	46.0302	Electrician						156	1560
	46.0303	Lineworker						0	0
	46.0399	Electrical & Power Transmission Installer, Other						6	60
	Total Completers For U/A 1430							1620	
	Undersupply								-5841

CAREER CLUSTER NUMBER: 07				AVG					COMPLT	EST.
CAREER CLUSTER: BUILDING & CONSTRUCTION				1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Construction Group (04-09)				WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	+/-
									1998-2001	SUPPLY
Units of Analysis	Occupational Titles									
1440	OES	GENERAL CONSTRUCTION								
	21908	Construction & Building Inspectors		\$ 12.64	860	1010	147	221	368	
	87108	Drywall Installers		\$ 16.98	1800	2120	317	241	558	
	87111	Tapers		\$ 17.58	n/a	n/a	n/a	n/a	n/a	
	87114	Lathers		n/a	n/a	n/a	n/a	n/a	n/a	
	87311	Concrete & Terrazo Finishers		\$ 13.79	3750	4570	821	448	1269	
	87317	Plasterers & Stucco Masons		\$ 17.16	430	530	100	111	211	
	87602	Carpet Installers		\$ 10.46	2810	3270	461	611	1072	
	87605	Floor Layers, Except Carpet, Wood & Hard Tile		\$ 11.14	n/a	n/a	n/a	n/a	n/a	
	87608	Floor Sanding Machine Operators		n/a	n/a	n/a	n/a	n/a	n/a	
	87802	Insulation Workers		n/a	1810	1930	122	585	707	
	87808	Roofers		\$ 13.47	4580	4530	-42	1568	1568	
	87811	Glaziers		n/a	1280	1460	176	328	504	
	87814	Structural Metal Workers		\$ 15.68	2610	3110	499	691	1190	
	87899	All Other Construction Trades Workers		\$ 13.52	2620	3190	570	620	1190	
	93911	Glaziers, Manufacturing		n/a	400	490	90	102	192	
	98300	Helpers, Construction Trades & Extractive Workers		n/a	n/a	n/a	n/a	n/a	n/a	
	98316	Helpers, Roofers		n/a	n/a	n/a	n/a	n/a	n/a	
	98319	Helpers, All Other Construction Trades Workers		\$ 11.74	1770	2180	412	806	1218	
		Total Job Openings For U/A 1440							10047	
	CIP									
	46.0403	Construction/Building Inspection							0	0
	46.0499	Construction & Building Finishers & Managers, Other							49	490
	46.9999	Construction Trades, Other							139	1390
		Total Completers For U/A 1440								1880
		Undersupply								-8167
1441	OES	PAINTING/PAPERHANGING								
	87402	Painters & Paperhangers, Constr & Maintenance		\$ 12.51	10870	13030	2153	2779	4932	
	98314	Helpers, Painters, Paperhangers, Plasterers, & Stdts		\$ 13.44	690	860	168	319	487	
		Total Job Openings For U/A 1441							5419	

CAREER CLUSTER NUMBER: 07	AVG						COMPLT		EST.
CAREER CLUSTER: BUILDING & CONSTRUCTION	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Construction Group (04-09)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Occupational Titles

Analysis

1441 CIP PAINTING/PAPERHANGING (CONT'D)
46.0408 Painter & Wall Coverer

0 0

Total Completers For U/A 1441

0

Undersupply

-5419

1450 OES PLUMBING
87502 Plumbers, Pipefitters, & Steamfitters
87505 Pipelaying Fitters
87508 Pipelayers
87511 Septic Tank Servicers & Sewer Pipe Cleaners
87899 All Other Construction Trades Workers
98315 Helpers, Plumbers, Pipefitters, & Steamfitters

\$ 16.23	13230	15130	1897	1652	3549
n/a	260	260	6	60	66
\$ 14.12	1090	1290	195	259	454
n/a	620	710	85	148	233
\$ 13.52	2620	3190	570	620	1190
n/a	1680	2020	345	772	1117

Total Job Openings For U/A 1450

6609

CIP

46.0501 Plumber & Pipefitter

39 390

Total Completers For U/A 1450

390

Undersupply

-6219

2750 OES CONSTRUCTION EQUIPMENT OPERATION
85935 Riggers
87705 Pile-Driver Operators
87708 Paving, Surfacing & Tamping Equipment Operators
87714 Rail-Track Laying & Maintenance Equip Operators
87899 All Other Construction Trades Workers
87902 Earth Drillers, Except Oil & Gas
87999 All Other Construction & Extractive Workers
97923 Excavating & Loading Machine Operators
97926 Dragline Operators
97938 Grader, Bulldozer & Scraper Operators
97941 Hoist & Winch Operators

n/a	180	170	-9	40	40
n/a	n/a	n/a	n/a	n/a	n/a
\$ 14.74	1910	2390	481	489	970
n/a	540	560	18	128	146
\$ 13.52	2620	3190	570	620	1190
\$ 14.37	380	420	41	97	138
\$ 15.27	3850	4500	647	961	1608
\$ 13.52	2460	3160	705	463	1168
\$ 15.95	240	260	18	45	63
\$ 14.39	2420	2640	222	192	414
n/a	240	270	25	44	69

CAREER CLUSTER NUMBER: 07	AVG						COMPLT	EST.	
CAREER CLUSTER: BUILDING & CONSTRUCTION	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Construction Group (04-09)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Occupational Titles

Analysis

2750 OES CONSTRUCTION EQUIPMENT OPERATION (CONT'D)

97944 Crane & Tower Operators

97956 Operating Engineers

n/a 2940 2710 -235 666 666
\$ 18.95 4400 5220 826 786 1612

Total Job Openings For U/A 2750 8084

CIP

49.0202 Construction Equipment Operator

7 70

Total Completers For U/A 2750 70

Undersupply -8014

D05 OES MISCELLANEOUS CONSTRUCTION WORKERS

85126 Refractory Materials Rprs, Except Brickmasons

87314 Reinforcing Metal Workers

87702 Air Hammer Operators

87711 Highway Maintenance Workers

87817 Fence Erectors

87911 Rotary Drill Operators, Oil & Gas Extraction

87914 Derrick Operators, Oil & Gas Extraction

87917 Service Unit Operators

97905 Tank Car & Truck Loaders

97908 Oil Pumpers, Except Wellhead

97911 Wellhead Pumpers

97914 Main-Line Station Engineers

97921 Gas Compressor Operators

97953 Pump Operators

n/a 180 150 -35 43 43
\$ 19.51 380 460 77 100 177
n/a n/a n/a n/a n/a
\$ 9.88 4250 4560 310 1008 1318
n/a 570 750 175 136 311
n/a 1870 2030 158 456 614
n/a n/a n/a n/a n/a
n/a n/a n/a n/a n/a
n/a 160 120 -40 40 40
n/a n/a n/a n/a n/a
n/a n/a n/a n/a n/a
n/a n/a n/a n/a 10 10
n/a 70 60 -10 10 10
\$ 13.40 150 140 -10 32 32

Total Job Openings For U/A D05 2555

Undersupply -2555

BUILDING & CONSTRUCTION - 07 SUMMARY

OVER UNDER BALANCE

Units of Analysis With Oversupply:

0

Units of Analysis With Undersupply:

1410, 1420, 1430, 1440, 1441, 1450, 2750, D05

-45910

Career Cluster Balance

Undersupply

-45910

CAREER CLUSTER NUMBER: 08			AVG						COMPLT	EST.
CAREER CLUSTER: EDUCATIONAL SERVICES			1999	1998	2008	JOB	OPENINGS		3YR AVG	+/-
CAREER FOCUS: Education Group (10-27)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	SUPPLY
Units of Analysis	Occupational Titles									
1060	OES	EDUCATIONAL ADMINISTRATION								
	15005	Education Administrators	\$ 20.37	7540	8210	666	1893	2559		
			Total Job Openings For U/A 1060						2559	
	CIP									
	13.0401	Education Administration & Supervision, General							105	1050
	13.0402	Adminstration of Special Education							0	0
	13.0403	Adult & Continuing Education Administration							5	50
	13.0404	Educational Supervision							0	0
	13.0405	Elementary, Middle & Secondary Education Adm.							19	190
	13.0406	Higher Education Administration							14	140
	13.0407	Community & Junior College Administration							0	0
	13.0499	Education Administration & Supervision, Other							0	0
			Total Completers For U/A 1060							1430
			Undersupply							-1129
1070	OES	SPECIAL EDUCATION								
	31311	Teachers Special Education	n/a	6040	7450	1410	510	1920		
			Total Job Openings For U/A 1070						1920	
	CIP									
	13.1001	Special Education, General							183	1830
	13.1003	Education of the Deaf & Hearing Impaired							9	90
	13.1005	Education of the Emotionally Handicapped							0	0
	13.1006	Education of the Mentally Handicapped							0	0
	13.1007	Education of the Multiple Handicapped							55	550
	13.1008	Education of the Physically Handicapped							0	0
	13.1009	Education of the Blind & Visually Handicapped							0	0
	13.1011	Education of the Specific Learning Disabled							0	0
	13.1012	Education of the Speech Impaired							0	0
	13.1013	Education of the Autistic							0	0
	13.1099	Special Education, Other							0	0
			Total Completers For U/A 1070							2470
			Oversupply							550

CAREER CLUSTER NUMBER: 08			AVG					COMPLT	EST.	
CAREER CLUSTER: EDUCATIONAL SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Education Group (10-27)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	SUPPLY
Units of Analysis	Occupational Titles									
1090	OES	ELEMENTARY EDUCATION								
	31305	Teachers, Elementary School	n/a	31660	32570	917	7311	8228		
			Total Job Openings For U/A 1090						8228	
	CIP									
	13.1202	Elementary Teacher Education						1808	18080	
			Total Completers For U/A 1090						18080	
			Oversupply							9852
1100	OES	PRESCHOOL EDUCATION								
	31302	Teachers, Preschool & Kindergarten	8.54	n/a	n/a	n/a	n/a	n/a		
			Total Job Openings For U/A 1100						0	
	CIP									
	13.1204	Pre-Elementary EDC/Early Childhood						69	690	
			Total Completers For U/A 1100						690	
			Oversupply							690
2230	OES	INSTRUCTIONAL DESIGN								
	31508	Audio-Visual Specialists	\$ 16.05	310	280	-27	42	42		
	31517	Instructional Coordinators	\$ 14.59	1220	1430	208	129	337		
			Total Job Openings For U/A 2230						379	
	CIP									
	10.0101	Educational/Instructional Media Technology						2	20	
	13.0301	Curriculum & Instruction						42	420	
	13.0501	Educational/Instructional Media Design						7	70	
			Total Completers For U/A 2230						510	
			Oversupply							131
2320	OES	TEACHING ASSISTING								
	31521	Teacher Aides, Paraprofessional	n/a	11890	14670	2789	1363	4152		
	53905	Teacher Aides & Educational Assistants, Clerical	n/a	9320	11520	2207	1068	3275		
			Total Job Openings For U/A 2320						7427	
	CIP									
	13.0201	Bilingual/Bicultural						0	0	
	13.1501	Teacher Assistant/Aide						0	0	
			Total Completers For U/A 2320						0	
			Undersupply							-7427
CAREER CLUSTER NUMBER: 08			AVG					COMPLT	EST.	
CAREER CLUSTER: EDUCATIONAL SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-

CAREER FOCUS: Education Group (10-27)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY	
Units of Analysis		Occupational Titles										
2330	OES	ADULT & CONTINUING EDUCATION										
	31317	Instructors, Nonvocational Education	11.96	1900	2650	753	200	953				
	Total Job Openings For U/A 2330							953				
	CIP											
	13.1201	Adult & Continuing Teacher Education							30	300		
	Total Completers For U/A 2330									300		
	Undersupply										-653	
	2340	OES	SECONDARY & VOCATIONAL EDUCATION									
		31308	Teachers, Secondary School	n/a	n/a	n/a	n/a	n/a	n/a			
		31314	Teachers & Instructors, Voc. Education & Trng	\$ 16.63	6120	7260	1142	643	1785			
31321		Instructors & Coaches, Sports & Physical Trng	\$ 14.11	6590	7430	844	693	1537				
34058		Athletes, Coaches, Umpires, & Related Workers	n/a	680	820	143	241	384				
Total Job Openings For U/A 2340							3706					
CIP												
13.1203		Junior High/Intermediate/Middle Sch Teacher Ed							1	10		
13.1205		Secondary Teacher Education							245	2450		
13.1301		Agricultural Teacher Education (Vocational)							13	130		
13.1302	Art Teacher Education							36	360			
13.1303	Business Teacher Education (Vocational)							18	180			
13.1304	Driver & Safety Teacher Education							0	0			
13.1305	English Teacher Education							127	1270			
13.1306	Foreign Languages Teacher Education							0	0			
13.1307	Health Teacher Education							158	1580			
13.1308	Home Economics Teacher Education (Vocational)							0	0			
13.1309	Technology Teacher Educ/Industrial Arts							132	1320			
13.1310	Marketing Operations Teacher Education							0	0			
13.1311	Mathematics Teacher Education							25	250			
13.1312	Music Teacher Education							38	380			
13.1314	Physical Education Teaching							630	6300			

CAREER CLUSTER NUMBER: 08	AVG						COMPLT		EST.
CAREER CLUSTER: EDUCATIONAL SERVICES	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Education Group (10-27)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Occupational Titles

Analysis

2340 CIP SECONDARY & VOCATIONAL EDUCATION (CONT'D)

13.1315	Reading Teacher Education	1	10
13.1316	Science Teacher Education	33	330
13.1318	Social Studies Teacher Education	115	1150
13.1320	Trade & Industrial Teacher	13	130
13.1322	Biology Teacher Education	9	90
13.1323	Chemistry Teacher Education	3	30
13.1325	French Language Teacher	5	50
13.1326	German Language Teacher	1	10
13.1329	Physics Teacher Education	1	10
13.1330	Spanish Teacher Education	15	150
13.1331	Speech Teacher Education	11	110
13.1396	Unknown Name/Non-classified	3	30
13.1399	Teacher Education	3	30

Total Completers For U/A 2340	16360
Oversupply	12654

D02 OES MISCELLANEOUS PROFESSIONAL OCCUPATIONS

31111	Lecturers	n/a	430	420	-4	83	83
31117	Graduate Assistants, Teaching	n/a	n/a	n/a	n/a	n/a	n/a
31209	All Other Physical Science Teachers, PS	n/a	350	430	75	98	173
31212	Health Speciality Teachers, PS	n/a	630	910	274	176	450
31216	English & Foreign Language Teachers	n/a	n/a	n/a	n/a	n/a	n/a
31218	Art, Drama, & Music Teachers, PS	n/a	n/a	n/a	n/a	n/a	n/a
31222	Engineering Teachers, PS	n/a	650	790	140	181	321
31299	All Other Postsecondary Teachers	n/a	n/a	n/a	n/a	n/a	n/a
31399	All Other Teachers & Instructors	n/a	4450	4790	345	468	813
53502	Welfare Eligibility Workers & Interviewers	\$ 11.59	1020	890	-126	219	219

Total Job Openings For U/A D02	2059
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[illegible]

Units Of Analysis	Occupational Titles		
S07	CIP		
	13.0101 Education, General	257	2570
	13.0601 Educational Evaluation & Research	0	0
	13.0603 Educational Statistics & Research Methods	0	0
	13.0604 Educational Assessment, Testing & Measurement	3	30
	13.0699 Educational Evaluation, Research & Stats, Other	0	0
	13.0701 International & Comparative Education	5	50
	13.0802 Educational Psychology	31	310
	13.0901 Social & Philosophical Foundations of Education	6	60
	13.1004 Education of the Gifted & Talented	0	0
	13.1206 Teacher Education, Multiple Levels	42	420
	13.1299 General Teacher Education, Other	0	0
	13.1401 Teaching English As A Second Language	3	30
	13.9999 Education, Other	0	0
	42.1701 School Psychology	5	50

Total Completers For U/A S07	3520	
Oversupply		3520

EDUCATIONAL SERVICES - 08		OVER	UNDER	BALANCE
Units of Analysis With Oversupply:	1070, 1100, 2230, 2340, S07	27397		
Units of Analysis With Undersupply:	1060, 2330, 2320		-9209	
Career Cluster Balance	Oversupply			18188

CAREER CLUSTER NUMBER: 09			AVG						COMPLT		EST.
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Health Diagnosis & Treatment Group (09-20)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis											
Occupational Titles											
1570	OES	ALL OTHER HEALTH DIAGNOSIS & TREATMENT									
	32199	All Other Health Practitioners	41.22	740	1180	439	152	591			
	32113	Chiropractors	23.61	520	700	172	108	280			
			Total Job Openings For U/A 1570						280		
	CIP										
	51.0101	Chiropractic (D.C., D.C.M.)							0	0	
	51.2701	Acupuncture & Oriental Medicine							0	0	
	51.2704	Naturopathic Medicine							0	0	
			Total Completers For U/A 1570							0	
			Undersupply								-871
1580	OES	SPEECH PATHOLOGY & AUDIOLOGY									
	32314	Speech-Language Pathologists, Audiologists	\$ 20.61	2200	3010	814	330	1144			
			Total Job Openings For U/A 1580						1144		
	CIP										
	51.0202	Audiology/Hearing Sciences							2	20	
	51.0203	Speech Language Pathology							41	410	
	51.0204	Speech Language Pathology & Audiology							239	2390	
	51.0299	Communication Disorders Sciences							0	0	
			Total Completers For U/A 1580							2820	
			Undersupply								-1144
1590	OES	DENTISTRY									
	32105	Dentists	\$ 42.52	2480	2470	-14	505	505			
			Total Job Openings For U/A 1590						505		
	CIP										
	51.1101	Pre-Dentistry Studies							2	20	
	51.0401	Dentistry (D.D.S., D.M.D.)							95	950	
	51.0501	Dental Clinical Sciences/Graduate							23	230	
	51.2899	Periodontics Speciality; All Residency Programs							0	0	
			Total Completers For U/A 1590							1200	
			Oversupply								695
1670	OES	PHYSICIAN ASSISTING									
	32511	Physicians Assistants	\$ 19.65	1290	1910	617	216	833			
			Total Job Openings For U/A 1670						833		

CAREER CLUSTER NUMBER: 09			AVG						COMPLT		EST.
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Health Diagnosis & Treatment Group (09-20)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of											
Analysis											
1670	CIP	PHYSICIAN ASSISTING (CONT'D)									
	51.0807	Physician Assistant									
									0	0	
			Total Completers For U/A 1669						0		
			Undersupply						-833		
1740	OES	MEDICINE									
	32102	Physicians and Surgeons	\$ 58.44	10940	14070	3127	1707	4834			
			Total Job Openings For U/A 1739						4834		
	CIP										
	51.1201	Medicine (M.D.)							286	2860	
	51.1901	Osteopathic Medicine (D.O.)							0	0	
	51.2705	Psychoanalysis							0	0	
	51.2901	Includes: All Medical							0	0	
	THRU	Residency Programs							0	0	
	51.2999	Or 65 CIP codes excluding 51.2999							0	0	
			Total Completers For U/A 1739						2860		
			Undersupply						-1974		
1750	OES	NURSING									
	32502	Registered Nurses	\$ 18.98	46680	56020	9335	7705	1704			
			Total Job Openings For U/A 1749						1704		
	CIP										
	51.1601	Nursing (R.N. Training)							1692	16920	
	51.1603	CIP codes for 51.1603 thru 51.1612							8	80	
	51.1612	Includes Post R.N. Programs							0	0	
	51.1699	Nursing, Other (e.g. Nursing Adm.)							94	940	
			Total Completers For U/A 1749						17940		
			Oversupply						16236		
1770	OES	OPTOMETRY									
	32108	Optometrists	40.88	860	1010	147	178	325			
			Total Job Openings For U/A 1770						325		

CAREER CLUSTER NUMBER: 09			AVG					COMPLT	EST.	
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Health Diagnosis & Treatment Group (09-20)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of Analysis	Occupational Titles									
1770	CIP	OPTOMETRY (CONT'D)								
	51.1701	Optometry (O.D.)							85	850
			Total Completers For U/A 1770							850
			Oversupply							525
1790	OES	PODIATRY								
	32111	Podiatrists	57.56	290	350	60	59	119		
			Total Job Openings For U/A 1790							119
	CIP									
	51.2101	Podiatry (D.P.M., D.P., POD D.)							0	0
			Total Completers For U/A 1790							0
			Undersupply							-119
1840	OES	VETERINARY MEDICINE								
	32114	Veterinarians/Veterinary Inspec (EXC. AGRIC)	\$ 29.99	1040	1290	249	214	463		
			Total Job Openings For U/A 1840							582
	CIP									
	51.2401	Veterinary Medicine (D.V.M.)							67	670
	51.2501	Veterinary Clinical Sciences							16	160
	51.3001	CIP codes 51.3001 thru 51.3099							0	0
	51.3099	Includes Veterinary Speciality Programs							0	0
			Total Completers For U/A 1840							830
			Oversupply							367

CAREER CLUSTER NUMBER: 09			AVG						COMPLT		EST.
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Health Technology Group (09-21)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis	Occupational Titles										
1600	OES	DENTAL HYGIENISTS									
	32908	Dental Hygienists	\$ 21.81	3030	4130	1106	680	1786			
		Total Job Openings For U/A 1600						1786			
	CIP										
	51.0602	Dental Hygienists							153	1530	
		Total Completers For U/A 1600								1530	
		Undersupply									-256
1631	OES	CARDIOLOGY TECHNOLOGY									
	32925	Cardiology Technologists	\$ 14.60	450	640	190	111	301			
		Total Job Openings For U/A 1631						301			
	CIP										
	51.0901	Cardiovascular Technology/Tech							0	0	
	51.0906	Perfusion Technology/Tech							0	0	
		Total Completers For U/A 1631								0	
		Undersupply									-301
1680	OES	LABORATORY TECHNOLOGY									
	32902	Medical & Clinical Laboratory Technologists	\$ 16.89	3110	3620	505	397	902			
	32905	Medical & Laboratory Technician	\$ 12.60	2760	3420	661	352	1013			
		Total Job Openings For U/A 1680						1915			
	CIP										
	51.1001	Blood Bank Technology/Tech							0	0	
	51.1002	Cytotechnologist							0	0	
	51.1003	Hematology							0	0	
	51.1004	Medical Laboratory							27	270	
	51.1005	Medical Technology							39	390	
	51.1099	Health & Medical Laboratory							1	10	
		Total Completers For U/A 1680								670	
		Undersupply									-1245
1681	OES	VETERINARY ASSISTING/TECHNOLOGY									
	32951	Veterinary Technicians and Technologists	\$ 8.49	n/a	n/a	n/a	n/a	n/a			
	79806	Veterinary Assistants	\$ 8.49	n/a	n/a	n/a	n/a	n/a			
		Total Job Openings For U/A 1681						0			

CAREER CLUSTER NUMBER: 09			AVG					COMPLT	EST.	EST.
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	3YR AVG	+/-
CAREER FOCUS: Health Technology Group (09-21)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of Analysis	Occupational Titles									
1681	CIP	VETERINARY ASSISTING/TECHNOLOGY (CONT'D)								
51.0808		Veterinarian Assistant/Animal Health Tech							38	380
			Total Completers For U/A 1681							380
			Oversupply							-380
1690	OES	EMERGENCY MEDICAL TECHNICIANS								
32508		Emergency Medical Technicians	\$ 10.33	3610	4210	599	894	1493		
66023		Ambulance Drvrs & Attendants Exc. EMT's	\$ 8.95	n/a	n/a	n/a	n/a	n/a		
			Total Job Openings For U/A 1690						1493	
	CIP									
51.0904		Emergency Medical Technicians							26	260
			Total Completers For U/A 1690							260
			Undersupply							-1233
1700	OES	NUCLEAR MEDICAL TECHNOLOGY								
32914		Nuclear Medicine Technologists	\$ 18.89	350	400	51	49	100		
			Total Job Openings For U/A 1700						100	
	CIP									
51.0905		Nuclear Medical Technology/Technician							12	120
			Total Completers For U/A 1700							120
			Oversupply							20
1710	OES	RADIOLOGICAL TECHNOLOGY								
32917		Radiologic Technologists	n/a	n/a	n/a	n/a	n/a	n/a		
32921		Radiologic Technicians	n/a	n/a	n/a	n/a	n/a	n/a		
			Total Job Openings For U/A 1710						0	
	CIP									
51.0907		Medical Radiologic Technology/Tech							143	1430
			Total Completers For U/A 1710							1430
			Oversupply							1430
1730	OES	SURGICAL TECHNOLOGY								
32928		Surgical Technologists/Technicians	\$13.72	n/a	n/a	n/a	n/a	n/a		
			Total Job Openings For U/A 1730						0	

CAREER CLUSTER NUMBER: 09			AVG					COMPLT	EST.	
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Health Technology Group (09-21)			WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL
Units of Analysis	Occupational Titles									
1730	CIP	SURGICAL TECHNOLOGY (CONT'D)								
	51.0909	Surgical/Operating Room Tech							62	620
Total Completers For U/A 1730									620	
Oversupply										620
2880	OES	DENTAL LABORATORY								
	89921	Precision Dental Lab Technicians	\$ 13.60	n/a	n/a	n/a	n/a	n/a		
Total Job Openings For U/A 2880								0		
	CIP									
	51.0603	Dental Laboratory Technician							14	140
Total Completers For U/A 2880									140	
Oversupply										10
2920	OES	EKG								
	32926	Electrocardiograph Technicians	\$ 14.60	n/a	n/a	n/a	n/a	n/a		
Total Job Openings For U/A 2920								0		
	CIP									
	51.0902	Electrocardiograph Technology/Tech							0	0
Total Completers For U/A 2920									0	
Supply										0
2930	OES	EEG								
	32923	Electroneurodiagnostic Technologists	\$ 13.83	130	120	-10	31	21		
Total Job Openings For U/A 2930								21		
	CIP									
	51.0903	Electrocephalograph Technology/Tech							0	0
Total Completers For U/A 2930									0	
Undersupply										-21

CAREER CLUSTER NUMBER: 09			AVG					COMPLT		
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.
CAREER FOCUS: Health Therapy Group (09-22)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
										EST.
										+/-
										SUPPLY
Units of Analysis	Occupational Titles									
1640	OES	OCCUPATIONAL THERAPY ASSISTING								
	66021	Occupational Therapy Assistants & Aides	\$ 13.27	n/a	n/a	n/a	n/a	n/a		
			Total Job Openings For U/A 1640						0	
	CIP									
	51.0803	Occupational Therapy Assistant							18	180
			Total Completers For U/A 1640							180
			Supply							180
1660	OES	PHYSICAL THERAPY ASSISTING								
	66017	Physical & Corrective Therapy Assistants & Aides	\$ 14.27	1510	2210	707	373	1080		
			Total Job Openings For U/A 1660						1080	
	CIP									
	51.0806	Physical Therapy Assistant							60	600
			Total Completers For U/A 1660							600
			Undersupply							-480
1720	OES	RESPIRATORY THERAPISTS								
	32302	Respiratory Therapists	\$ 17.00	2670	3780	1104	401	1505		
			Total Job Openings For U/A 1720						1505	
	CIP									
	51.0908	Respiratory Therapy Technician							102	1020
			Total Completers For U/A 1720							1020
			Undersupply							-485
1800	OES	ALL OTHER THERAPY								
	32300	Therapists	n/a	n/a	n/a	n/a	n/a	n/a		
	32311	Corrective & Manual Arts Therapists	n/a	190	220	30	29	59		
	32399	All Other Therapists	n/a	490	730	242	73	315		
			Total Job Openings For U/A 1800						374	
	CIP									
	31.0503	Athletic Training & Sports Medicine							24	240
	31.0505	Exercise Sciences/Physiology & Movement Std.							13	130
	51.2301	Art Therapy							0	0
	51.2304	Dance Therapy							0	0

CAREER CLUSTER NUMBER: 09			AVG						COMPLT		EST.
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS		3YR AVG		+/-
CAREER FOCUS: Health Therapy Group (09-22)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis			Occupational Titles								
1800	CIP	ALL OTHER THERAPY (CONT'D)									
	51.2305	Music Therapy							4	40	
	51.2399	Rehabilitation/Therapeutic Services, Other							1	10	
			Total Completers For U/A 1800							420	
			Oversupply								46
1810	OES	OCCUAPATIONAL THERAPY									
	32305	Occupational Therapists	\$ 24.13	1580	2160	580	237	817			
			Total Job Openings For U/A 1810							817	
	CIP										
	51.2306	Occpational Therapy							80	800	
			Total Completers For U/A 1810							800	
			Undersupply								-17
1820	OES	PHYSICAL THERAPY									
	32308	Physical Therapists	\$ 28.10	2670	3710	1037	400	1437			
			Total Job Openings For U/A 1820							1437	
	CIP										
	51.2308	Physical Therapy							60	600	
			Total Completers For U/A 1820							600	
			Undersupply								-837
1830	OES	RECREATIONAL THERAPY									
	32317	Recreational Therapists	\$ 11.93	670	740	70	101	171			
			Total Job Openings For U/A 1830							171	
	CIP										
	51.2309	Recreational Therapy							0	0	
			Total Completers For U/A 1830							0	
			Undersupply								-171

CAREER CLUSTER NUMBER: 09			AVG					COMPLT		EST.
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG		+/-
CAREER FOCUS: Health Assisting Group (09-23)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of Analysis		Occupational Titles								
1760	OES	LPN								
	32505	Licensed Practical Nurses	\$ 13.41	16930	19810	2880	3623	6503		
				Total Job Openings For U/A 1760				6503		
	CIP									
	51.1613	Practical Nurse (L.P.N. Training)							637	6370
				Total Completers For U/A 1760					6370	
				Undersupply						-133
2850	OES	MENTAL/PHYSICAL HEALTH ASSISTING								
	27308	Human Services Workers	\$ 13.70	5300	8310	3010	1382	4392		
				Total Job Openings For U/A 2850				4392		
	CIP									
	51.0301	Community Health Liaison							15	150
	51.1501	Alcohol/Drug Abuse Counseling							0	0
	51.1599	Mental Health Services, Other							26	260
				Total Completers For U/A 2850					410	
				Undersupply						-3982
2851	OES	PSYCHIATRIC ASSISTING								
	32931	Psychiatric Technicians	n/a	2880	3170	290	401	691		
	66014	Psychiatric Aides	\$ 9.29	3010	3130	120	419	539		
				Total Job Openings For U/A 2851				1230		
	CIP									
	51.1502	Psychiatric/Mental Health Services Tech							23	230
				Total Completers For U/A 2851					230	
				Undersupply						-1000
2852	OES	NURSE ASSISTING								
	66008	Nursing Aides, Orderlies & Attendants	\$ 8.21	27000	30180	3180	3758	6938		
				Total Job Openings For U/A 2852				6938		
	CIP									
	51.1614	Nursing Assistant/Aide							740	7400
				Total Completers For U/A 2852					7400	
				Oversupply						462

CAREER CLUSTER NUMBER: 09			AVG					COMPLT		
CAREER CLUSTER: HEALTH SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Health Assisting Group (09-23)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of Analysis										
2853	OES 66011	Occupational Titles HOME HEALTH ASSISTING Home Health Aides	\$ 8.50	8560	14100	5539	1192	6731		
								Total Job Openings For U/A 2853	6731	
	CIP 51.1615	Home Health Aid							0	0
								Total Completers For U/A 2853	0	
								Undersupply		-6731
2860	OES 27308	COMMUNITY HEALTH WORK Human Services Workers	\$ 13.70	5300	8310	3006	1382	4388		
								Total Job Openings For U/A 2860	4388	
	CIP 51.0301	Community Health Liaison							15	150
								Total Completers For U/A 2860	150	
								Undersupply		-4238
2870	OES 66002	DENTAL ASSISTING Dental Assistants	\$ 10.96	4880	6750	1879	744	2623		
								Total Job Openings For U/A 2870	2623	
	CIP 51.0601	Dental Assistant							149	1490
	51.0699	Dental Services, Other							20	200
								Total Completers For U/A 2870	1690	
								Undersupply		-1133
2910	OES 66005	MEDICAL ASSISTING Medical Assistants	\$ 11.08	5890	9510	3626	1456	5082		
								Total Job Openings For U/A 2910	5082	
	CIP 51.0705	Medical Office Management							0	0
	51.0801	Medical Assistant							288	2880
	51.0804	Ophthalmic Medical Assistant							0	0
	51.0899	Health & Medical Assistants, Other							26	260
	51.1804	Orthoptics							0	0
	51.1896	Ophthalmic/Optometric Services, Other							0	0
								Total Completers For U/A 2910	3140	
								Undersupply		-1942

CAREER CLUSTER NUMBER: 09		AVG						COMPLT		EST.
CAREER CLUSTER: HEALTH SERVICES		1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: All Other Health Related Group (09-24)		WAGE	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis	Occupational Titles									
1630	OES MISCELLANEOUS HEALTH SERVICES									
	32999 All Other Health Professionals, Paraprofessionals	\$ 11.65	10430	11850	1420	2518	3938			
	66099 All Other Health Service Workers	\$ 11.48	3830	4920	1089	896	1985			
	Total Job Openings For U/A 1630						5923			
	CIP									
	12.0404 Electrolysis Technician							0	0	
	26.0699 Miscellaneous Biological Specializations							0	0	
	51.0100 Health Care Practicum							0	0	
	51.0799 Health & Medical Administrative Services							13	130	
	51.0802 Medical Laboratory Assistant							0	0	
	51.0899 Health & Medical Assistants, Other							26	260	
	51.0910 Diagnostic Medical Sonography Technician							0	0	
	51.0999 Health & Medical Diagnostic & Trmnt Svcs, Other							36	360	
	51.2601 Health Aide							0	0	
	51.2602 Home Health Aide							0	0	
	51.9999 Health Professions & Related Sciences							184	1840	
	Total Completers For U/A 1630								2590	
	Undersupply									-3333
1650	OES PHARMACY SUPPORT									
	32518 Pharmacy Technicians	\$ 8.94	3480	3780	306	859	1165			
	66026 Pharmacy Aides/Assistants	\$ 8.48	1310	1690	380	300	680			
	Total Job Openings For U/A 1650						1845			
	CIP									
	51.0805 Pharmacy Technician/Assistant							0	0	
	51.1103 Pre-Pharmacy Studies							2	20	
	Total Completers For U/A 1650								20	
	Undersupply									-1825
1780	OES PHARMACY									
	32517 Pharmacists	\$ 31.34	4340	4440	107	1190	1297			
	Total Job Openings For U/A 1780						1297			
	CIP									
	51.2001 Pharmacy (B. Pharm, Pharm. D.)							222	2220	
	51.2002 Pharmacy Administration & Pharmaceuticals							0	0	
	51.2003 Medical Pharmacology & Pharmaceutical Sciences							4	40	
	51.2099 Pharmacy, Other							5	50	
	51.2202 Environmental Health							7	70	
	Total Completers For U/A 1780								2380	
	Oversupply									1013

CAREER CLUSTER NUMBER: 09	AVG						COMPLT		EST.
CAREER CLUSTER: HEALTH SERVICES	1996	1994	2005	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: All Other Health Related Group (09-24)	WAGE	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1994-97	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
2940	OES	OPTICAL DISPENSING							
	32514	Opticians, Dispensing & Measuring	\$ 10.63	2020	2370	347	250	597	
				Total Job Openings For U/A 2940				597	
	CIP								
	51.1801	Opticianry/Dispensing Optician					0	0	
	51.1802	Optical Technician/Assistant					6	60	
							Total Completers For U/A 2940		60
							Undersupply		-537

HEALTH SERVICES - 09 SUMMARY		OVER	UNDER	BALANCE
Units Of Analysis With Oversupply:	2880	19569		
Units Of Analysis With Undersupply:	1570,1580, 1669, 1739, 1790, 1600, 1631, 1680, 1690, 2930, 1660, 1720, 1810, 1820, 1830, 1760, 2850, 2851, 2853, 2860, 2870, 2910, 1630, 1650, 1780, 2940		-33828	
Career Cluster Balance:	Undersupply			-14259

CAREER CLUSTER NUMBER: 10			AVG					COMPLT	EST.
CAREER CLUSTER: PERSONAL & COMMERCIAL SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CLUSTER FOCUS: Personal Services Group (14-35)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001
									TOTAL
									EST. +/-
									SUPPLY
Units of	Occupational Titles								
Analysis									
1050	OES	BARBERING/COSMETOLOGY							
	68002	Barbers	\$ 10.58	440	310	-123	122	122	
	68005	Hairdressers, Hairstylists & Cosmetologists	\$ 8.73	13130	14300	1173	3382	4555	
	68008	Manicurists	\$ 7.21	820	1030	208	212	420	
	68011	Shampooers	n/a	80	90	10	20	30	
			Total Job Openings For U/A 1050					5127	
CIP									
	12.0401	Cosmetic Services, General							0
	12.0402	Barber/Hair Stylist							10
	12.0403	Cosmetologist							367
	12.0404	Electrolysis Technician							0
	12.0499	Cosmetic Services, Other							6
			Total Completers For U/A 1050					3830	
			Undersupply						-1297
2270	OES	FUNERAL SERVICES							
	39011	Funeral Directors & Morticians	\$ 18.68	n/a	n/a	n/a	n/a	n/a	
	39014	Embalmers	\$ 14.26	n/a	n/a	n/a	n/a	n/a	
	68041	Funeral Attendants	\$ 8.22	n/a	n/a	n/a	n/a	n/a	
			Total Job Openings For U/A 2270					0	
CIP									
	12.0301	Funeral Services & Mortuary Science							13
			Total Completers For U/A 2270					130	
			Oversupply						130

CAREER CLUSTER NUMBER: 10				AVG				COMPLT	EST.		
CAREER CLUSTER: PERSONAL & COMMERCIAL SERVICES				1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	
CLUSTER FOCUS: Personal Care Services Group (14-36)				WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	
										TOTAL	
										+/-	
										SUPPLY	
Units of Analysis		Occupational Titles									
2400	OES	HOME ECONOMICS									
	31323	Farm & Home Management Advisors	\$ 10.69	n/a	n/a	n/a	n/a	n/a			
	Total Job Openings For U/A 2400								0		
	CIP										
	20.9999	Vocational Home Economics, Other							51	510	
	Total Completers For U/A 2400								510		
	Oversupply									510	
	2410	OES	CHILD CARE								
		27307	Residential Counselors	\$ 9.38	3600	4960	1357	824	2181		
		62041	Child Care Workers, Private Household	n/a	1230	1150	-84	564	564		
68038		Child Care Workers	\$ 7.11	16760	22110	5345	1648	6993			
Total Job Openings For U/A 2410								9738			
CIP											
20.0201		Child Care & Guidance Workers & Managers, General							348	3480	
20.0202		Child Care Provider/Assistant							142	1420	
20.0203		Child Care Services Manager							0	0	
20.0299		Child Care & Guidance Workers & Managers, Other							143	1430	
Total Completers For U/A 2410								6330			
Undersupply									-3408		
2470	OES	HOME ASSISTING									
	68035	Personal & Home Care Aides	\$ 7.77	1830	2620	789	476	1265			
	Total Job Openings For U/A 2470								1265		
	CIP										
	20.0602	Elder Care Provider/Companion							0	0	
	20.0606	Homemakers Aide							0	0	
	51.9999	Health Professions and Related Services							284	2840	
	Total Completers For U/A 2470								2840		
	Oversupply									1575	

CAREER CLUSTER NUMBER: 10			AVG					COMPLT	EST.	
CAREER CLUSTER: PERSONAL & COMMERCIAL SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Hospitality/Travel Services (14-37)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of	Occupational Titles									SUPPLY
Analysis										
2170	OES	HOSPITALITY SERVICES								
	49017	Counter & Rental Clerks	\$ 7.61	12470	16010	3539	5398	8937		
	53808	Hotel Desk Clerks	\$ 7.06	2910	3210	306	1116	1422		
	68021	Ushers, Lobby Attendants & Ticket Takers	\$ 6.32	1250	1430	178	228	406		
	68023	Baggage Porters & Bellhops	\$ 8.17	250	270	25	45	70		
	61000	First Line Suprv & Managers/Suprv, Service Workers	n/a	n/a	n/a	n/a	n/a	n/a		
	61099	All Other Suprv & Managers/Suprv, Service Workers	\$ 14.54	19370	22470	3096	4419	7515		
	69999	All Other Service Workers	\$ 11.81	7260	8020	763	2043	2806		
			Total Job Openings For U/A 2170					21156		
	CIP									
	08.0901	Hospitality & Recreation Marketing Operations, Gen.						50	500	
	08.0902	Hotel/Motel Services Marketing Operations						0	0	
	08.0903	Recreation Products/Services Marketing Operations						0	0	
	08.0999	Hospitality & Recreation Marketing Operations, Other						32	320	
			Total Completers For U/A 2170						820	
			Undersupply							-20336
2190	OES	TRAVEL SERVICES								
	43021	Travel Agents	\$ 10.93	1540	1730	188	324	512		
	53802	Travel Clerks	\$ 9.83	260	320	61	54	115		
	53805	Reservation & Transportation Ticket Agents	\$ 9.83	2390	2750	365	502	867		
	68017	Guides	\$ 8.88	150	170	20	28	48		
	68028	Transportation Attendants, Exc. Flight Attendants	\$ 13.14	170	150	-15	36	36		
			Total Job Openings For U/A 2190					1578		
	CIP									
	08.1104	Tourism Promotion Operations						0	0	
	08.1105	Travel Services Marketing Operations						0	0	
	08.1199	Tourism & Travel Svcs & Mrktng Operations, Other						0	0	
			Total Completers For U/A 2190						0	
			Undersupply							-1578
2740	OES	FLIGHT ATTENDING								
	68026	Flight Attendants	n/a	n/a	n/a	n/a	n/a	n/a		
			Total Job Openings For U/A 2740					0		
	CIP									
	49.0106	Flight Attendant						0	0	
			Total Completers For U/A 2740						0	
			Supply							0

CAREER CLUSTER NUMBER: 10			AVG					COMPLT	EST.
CAREER CLUSTER: PERSONAL & COMMERCIAL SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CLUSTER FOCUS: Cleaning Services Group (14-38)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001
									TOTAL
									EST. +/-
									SUPPLY
Units of	Occupational Titles								
Analysis									
2440	OES	LAUNDRY & DRYCLEANING							
	89514	Spotters, Drycleaning	\$ 6.94	140	150	12	34	46	
	89517	Pressers, Delicate Fabrics	\$ 8.16	540	580	48	89	137	
	89521	Precision Dryers	\$ 8.35	n/a	n/a	n/a	n/a	n/a	
	92726	Laundry & Drycleaning Machine Oper & Tenders	\$ 6.94	4960	5150	197	1214	1411	
	92728	Pressing Machine Oper/Tenders, Textile/Garment	\$ 8.16	1160	1230	75	192	267	
			Total Job Openings For U/A 2440					1861	
CIP									
	20.0303	Commercial Garment & Apparel Worker						0	0
	20.0305	Custom Tailor						0	0
	20.0309	Drycleaner & Launderer (Commercial)						0	0
			Total Completers For U/A 2440					0	
			Undersupply						-1861
2460	OES	HOUSEKEEPING/BUILDING SERVICES							
	61008	Housekeeping Supervisors	\$ 11.36	2130	2300	173	496	669	
	62011	Launderers & Ironers	n/a	n/a	n/a	n/a	n/a	n/a	
	62021	Cooks, Private Household	n/a	50	30	-17	11	11	
	62031	Housekeepers & Butlers (Private Household)	n/a	130	100	-35	29	29	
	62051	Cleaners & Servants, Private Household	n/a	1410	1760	341	309	650	
	67000	Cleaning & Building Service Workers	n/a	n/a	n/a	n/a	n/a	n/a	
	67002	Maids & Housekeeping Cleaners	\$ 7.01	19680	22000	2323	3662	5985	
	67005	Janitors & Cleaners, Exc Maids & Housekeeping	\$ 8.99	46550	50470	3911	10107	14018	
	67099	All Other Cleaning & Building Service Workers	\$ 11.66	5310	5610	298	1115	1413	
	69999	All Other Service Workers	\$ 11.92	7260	8020	763	2043	2806	
			Total Job Openings For U/A 2460					25581	
CIP									
	20.0000	Vocational Home Economics						275	2750
	20.0601	Custodial, Hsekgp & Home Serv Wrks & Mngrs, Gen						0	0
	20.0604	Custodian/Caretaker						0	0
	20.0605	Executive Housekeeper						0	0
	20.0699	Custodial Hsekgp & Home Serv Wrks & Mngrs, Other						0	0
			Total Completers For U/A 2460					2750	
			Undersupply						-22831

CAREER CLUSTER NUMBER: 10	AVG						COMPLT	EST.	
CAREER CLUSTER: PERSONAL & COMMERCIAL SERVICES	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Food Services Group (14-39)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
2280	OES	FOOD SERVICE							
	65000	Food & Beverage Preparation & Service Workers	n/a	n/a	n/a	n/a	n/a		
	65011	Food Servers, Outside	\$ 7.49	1630	1670	34	1355	1389	
	65014	Dining Room & Cafeteria Attendants & Bar Helpers	\$ 6.41	9750	9360	-386	2970	2970	
	65017	Counter Attndts, Lunchroom, Coffee Shp or Cafe	\$ 6.49	8660	8660	6	7183	7189	
	65028	Cooks, Institution or Cafeteria	\$ 8.18	11850	10820	-1026	3094	3094	
	65032	Cooks, Specialty Fast Food	\$ 6.59	16150	17420	1271	4218	5489	
	65035	Cooks, Short Order	\$ 6.85	7090	7640	550	1851	2401	
	65038	Food Preparation Workers	\$ 8.18	29160	29440	278	16064	16342	
	65041	Combined Food Preparation & Service Workers	\$ 6.35	46690	47570	876	25719	26595	
	65099	All Other Food Service Workers	\$ 7.29	4830	4900	74	1857	1931	
	69999	All Other Service Workers	\$ 13.26	7260	8020	763	2043	2806	
	89805	Bakers, Manufacturing	\$ 11.33	1690	1780	91	211	<u>302</u>	
			Total Job Openings For U/A 2280				70508		
	CIP								
	12.0504	Food & Beverage/Restaurant					5	50	
	12.0505	Kitchen Personnel/Cook & Assistant Training					0	0	
	12.0599	Culinary Arts & Related Services, Other					129	1290	
	20.0401	Institutional Food Workers & Administrator, General					236	2360	
	20.0404	Dietician Assistant					3	30	
	20.0405	Food Caterer					0	0	
	20.0409	Institutional Food Services Administrator					4	40	
	20.0499	Institutional Food Workers & Administrators, Other					292	<u>2920</u>	
			Total Completers For U/A 2280					6690	
			Undersupply						-63818
2281	OES	BARTENDING							
	65005	Bartenders	\$ 7.06	9850	9350	-504	4222	<u>4222</u>	
			Total Job Openings For U/A 2281				4222		

CAREER CLUSTER NUMBER: 10	AVG						COMPLT		EST.
CAREER CLUSTER: PERSONAL & COMMERCIAL SERVICES	1999	1998	2008	<u>JOB</u>	<u>OPENINGS</u>		3YR AVG	EST.	+/-
CAREER FOCUS: Food Services Group (14-39)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Analysis		Occupational Titles							
2281	CIP 12.0502	BARTENDING (CONT'D) Bartender/Mixologist						0	0
Total Completers For U/A 2281								0	0
Undersupply									-4222
2310	OES 65002	WAITER/WAITRESS Hosts & Hostesses, Restrnt/Lounge/Coffee Shop	\$ 6.85	6860	7460	607	2091	2698	
	65008	Waiters/Waitresses	\$ 6.20	44960	47130	2165	24767	<u>26932</u>	
Total Job Openings For U/A 2310								29630	
	CIP 12.0507	Waiter/Waitress & Dining Room Manager						0	0
Total Completers For U/A 2310								0	0
Undersupply									-29630
1270	OES 32351	DIETETICS/NUTRITION Dietitians & Nutritionists	\$ 17.90	n/a	n/a	n/a	n/a	n/a	
	32523	Dietetic Technicians	\$ 8.68	500	550	52	101	<u>153</u>	
Total Job Openings For U/A 1270								153	
	CIP 51.2702	Medical Dietitian						0	0
Total Completers For U/A 1270								0	0
Undersupply									-153

CAREER CLUSTER NUMBER: 10	AVG						COMPLT	EST.	
CAREER CLUSTER: PERSONAL & COMMERCIAL SERVICES	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Food Preparation Group (14-40)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
2282	OES	BAKING							
65021		Bakers, Bread & Pastry	\$ 9.88	3440	3610	174	897	1071	
				Total Job Openings For U/A 2282				1071	
	CIP								
12.0501		Baker/Pastry Chef						17	170
				Total Completers For U/A 2282					170
				Undersupply					-901
2283	OES	CHEF							
65026		Cooks, Restaurant	\$ 7.72	16660	17960	1299	4351	5650	
				Total Job Openings For U/A 2283				5650	
	CIP								
12.0503		Culinary Arts/Chef Training						9	90
				Total Completers For U/A 2283					90
				Undersupply					-5560
2300	OES	MEATCUTTING & BUTCHERING							
65023		Butchers & Meatcutters	\$ 10.35	3060	2520	-540	725	725	
89802		Slaughterers & Butchers	\$ 10.13	620	620	-8	148	148	
93938		Meat, Poultry & Fish Cutters & Trimmers, Hand	\$ 7.98	2770	3280	518	644	1162	
				Total Job Openings For U/A 2300				2035	
12.0506		Meatcutter						0	0
				Total Completers For U/A 2300					0
				Undersupply					-2035

PERSONAL & COMMERCIAL SERVICES - 10		OVER	UNDER	BALANCE
Units of Analysis With Oversupply:	2400, 2470, 2270	2215		
Units of Analysis With Undersupply:	1050, 1270, 2170, 2190, 2280, 2281, 2282, 2283, 2300, 2310, 2410, 2440, 2460, 2470, 2740		-157630	
Career Cluster Balance	Undersupply			-155415

CAREER CLUSTER NUMBER: 11			AVG						COMPLT		EST.
CAREER CLUSTER: LEGAL, SOCIAL & RECREATION SERVICES			1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Social Science Group (07-18)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY
Units of Analysis	Occupational Titles										
1030	OES	URBAN/REGIONAL PLANNING									
	27105	Urban & Regional Planners	\$ 14.81	410	460	51	84	135			
								Total Job Openings For U/A 1030		135	
	CIP										
	04.0301	City/Urban, Community & Regional Planning							26	260	
	04.0701	Architectural Urban Design & Planning							0	0	
								Total Completers For U/A 1030		260	
								Oversupply			125
1400	OES	ECONOMICS									
	27102	Economists, Including Market Research Anlyts	\$ 19.31	430	450	17	89	106			
								Total Job Openings For U/A 1400		106	
	CIP										
	01.0103	Agricultural Economics							94	940	
	45.0601	Economics, General							157	1570	
	45.0602	Applied & Resource Economics							0	0	
	45.0603	Econometrics & Quantitative Economics							0	0	
	45.0604	Development Economics & International Dev.							0	0	
	45.0605	International Economics							0	0	
	45.0699	Economics, Other							0	0	
								Total Completers For U/A 1400		2510	
								Oversupply			2404
2590	OES	UNDERGRADUATE SOCIAL SCIENCES									
	27100	Social Scientists, Include Urban & Reg. Planners	n/a	n/a	n/a	n/a	n/a	n/a			
	27199	All Other Social Scientists	\$ 14.92	540	570	31	109	140			
	31210	Social Sciences Teachers, Postsecondary	n/a	n/a	n/a	n/a	n/a	n/a			
								Total Job Openings For U/A 2590		140	
	CIP										
	45.0101	Social Sciences, General							104	1040	
	45.0201	Anthropology							98	980	
	45.0301	Archeology							1	10	
	45.0401	Criminology							138	1380	
	45.0601	Economics, General							157	1570	

CAREER CLUSTER NUMBER: 11							AVG		COMPLT	EST.
CAREER CLUSTER: LEGAL, SOCIAL & RECREATION SERVICES	1999	1998	2008	JOB	OPENINGS			3YR AVG	EST.	+/-
CAREER FOCUS: Social Science Group (07-18)	WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL	SUPPLY	

Units of Analysis	CIP	Occupational Titles	2017-2018	2018-2019
2590	CIP	UNDERGRADUATE SOCIAL SCIENCES (CONT'D)		
	45.0701	Geography	68	680
	45.0801	General History	294	2940
	45.0802	American History	0	0
	45.0803	European History	0	0
	45.0804	History & Philosophy of Science	11	110
	45.0899	History, Other	0	0
	45.0901	International Relations	0	0
	45.1001	Political Science, General	324	3240
	45.1002	American Government	0	0
	45.1099	Political Science	0	0
	45.1101	Sociology	339	3390
	45.1102	Urban Affairs/Studies	0	0
	45.1103	Social Sciences & History	0	0
		Total Completers For U/A 2590		15340
		Oversupply		15200
S04	CIP	AREA STUDIES		
	05.0102	American Studies	0	0
	05.0103	Asian Studies	0	0
	05.0104	East Asian Studies	6	60
	05.0107	Latin American Studies	5	50
	05.0110	Russian & Slavic Area Studies	8	80
	05.0114	Western European Studies	4	40
	05.0115	Canadian Studies	0	0
	05.0199	Area Studies, Other	10	100
	05.0201	Afro-American (Black) Studies	8	80
	05.0205	Jewish/Judiac Studies	11	110
	05.0207	Women's Studies	7	70
	05.0299	Ethnic & Cultural Studies, Other	0	0
		Total Completers for U/A S04		590
		Oversupply		590

CAREER CLUSTER NUMBER: 11	AVG						COMPLT	EST.	
CAREER CLUSTER: LEGAL, SOCIAL & RECREATION SERVICES	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Social Services Group (10-25)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
1080	OES	COUNSELING							
	31514	Vocational & Educational Counselors	\$ 19.55	3400	4210	816	778	1594	
				Total Job Openings For U/A 1080.				1594	
	CIP								
	13.1101	Counselor EDC Counseling & Guidance Services						161	1610
	13.1102	College/Postsecondary Counseling						55	550
	51.2310	Vocational Rehabilitation Counseling						0	0
				Total Completers For U/A 1080				2160	
				Oversupply					566
1380	OES	PSYCHOLOGY							
	27108	Psychologists	\$ 22.67	2250	2570	317	416	733	
				Total Job Openings For U/A 1380				733	
	CIP								
	42.0101	Psychology, General						932	9320
	42.0201	Clinical Psychology						16	160
	42.0301	Cognitive Psychology & Psycholinguistics						0	0
	42.0401	Community Psychology						0	0
	42.0601	Counseling Psychology						40	400
	42.0701	Developmental & Child Psychology						0	0
	42.0801	Experimental Psychology						0	0
	42.0901	Industrial & Organizational Psychology						0	0
	42.1101	Physiological Psychology/Psychobiology						0	0
	42.1601	Social Psychology						3	30
	42.9999	Psychology, Other						7	70
				Total Completers For U/A 1380				9980	
				Oversupply					9247
1390	OES	SOCIAL WORK							
	27305	Social Workers, Except Medical & Psychiatric	\$ 15.21	8010	10660	2652	1038	3690	
				Total Job Openings For U/A 1390				3690	
	CIP								
	44.0701	Social Work						436	4360
				Total Completers For U/A 1390				4360	
				Oversupply					670

CAREER CLUSTER NUMBER: 11			AVG				COMPLT			EST.
CAREER CLUSTER: LEGAL, SOCIAL & RECREATION SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.	+/-
CAREER FOCUS: Social Services Group (10-25)			WAGES	EMPL	EMPL	GROWTH	REPLACEMT	TOTAL	1998-2001	TOTAL
Units of Analysis	Occupational Titles									
1391	OES	CLINICAL & MEDICAL SOCIAL WORK								
	27302	Social Workers, Medical & Psychiatric	\$ 13.99	5020	7010	1988	651	2639		
			Total Job Openings For U/A 1391						2639	
	CIP									
	51.1503	Clinical & Medical Social Work							0	0
			Total Completers For U/A 1391						0	
			Undersupply							-2639
2510	OES	RECREATION								
	27311	Recreation Workers	\$ 11.00	3970	4580	616	1048	1664		
	31321	Instructors & Coaches, Sports & Physical Trng	\$ 14.11	6590	7430	844	693	1537		
	34058	Athletes, Coaches, Umpires, & Related Workers	n/a	680	820	143	241	384		
	68014	Amusement & Recreation Attendants	\$ 6.96	7480	7910	429	1367	1796		
			Total Job Openings For U/A 2510						5381	
	CIP									
	31.0101	Parks, Recreation & Leisure Studies							161	1610
	31.0301	Parks, Recreation & Leisure Facilities Mgmt							60	600
	31.0501	Health & Physical Education, General							0	0
	31.0503	Athletic Training & Sports Medicine							24	240
	31.0504	Sport & Fitness Administration/Management							11	110
	31.0505	Exercise Sciences/Physiology & Movement Studies							13	130
	31.0599	Health & Physical Education/Fitness, Other							0	0
	31.9999	Parks, Recreation, Leisure & Fitness Stds, Other							3	30
			Total Completers For U/A 2510						2720	
			Undersupply							-2661
2520	OES	RELIGIOUS EDUCATION								
	27505	Directors, Religious Activities & Education	\$ 11.08	n/a	n/a	n/a	n/a	n/a		
			Total Job Openings For U/A 2520						n/a	
	CIP									
	39.0501	Religious/Sacred Music							0	0
			Total Completers For U/A 2520						0	
			Supply							0

CAREER CLUSTER NUMBER: 11			AVG				COMPLT		
CAREER CLUSTER: LEGAL, SOCIAL & RECREATION SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Social Services Group (10-25)			WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL 1998-2001	TOTAL
									EST. +/- SUPPLY
Units of Analysis	Occupational Titles								
2530	OES	RELIGION							
	27502	Clergy	\$ 14.73	450	540	82	89	171	
	27599	All Other Religious Workers	\$13.56	n/a	n/a	n/a	n/a	n/a	
			Total Job Openings For U/A 2530					171	
	CIP								
	39.0601	Theology/Theological Studies						0	0
	39.0602	Divinity/Ministry (BD., MD.)						0	0
	39.0603	Rabbinical & Talmudic Studies (M.H.L./RAV)						0	0
	39.0604	Pre-Theological/Pre-Ministerial						0	0
	39.0699	Theological & Ministerial						0	0
	39.0701	Pastoral Counseling						0	0
	39.9999	Theological Std. & Religious Vocations, Other						0	0
			Total Completers For U/A 2530						0
			Undersupply						-171
S13	CIP	PHILISOPHY & RELIGION							
	38.0101	Philisophy						57	570
	38.0201	Religion/Religious Studies						36	360
	38.9999	Philisophy & Religion						0	0
			Total Completers For U/A S13						930
			Oversupply						930

CAREER CLUSTER NUMBER: 11	AVG						COMPLT	EST.	
CAREER CLUSTER: LEGAL, SOCIAL & RECREATION SERVICES	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Legal Services Group (10-26)	WAGES	EMPL	EMPL	GROWTH	REPLACENT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
1280	OES	LEGAL SERVICES							
	28102	Judges & Magistrates	\$ 33.18	n/a	n/a	n/a	n/a	n/a	
	28105	Adjudicators, Hearing Officers & Judicial Review	\$ 27.02	n/a	n/a	n/a	n/a	n/a	
	28108	Lawyers	\$ 32.23	7040	8400	1358	772	2130	
	28302	Law Clerks	\$ 12.92	1290	1170	-117	141	141	
		Total Job Openings For U/A 1280					2271		
	CIP								
	22.0101	Law (LL.B., J.D.)					466	4660	
	22.0102	Pre-Law Studies					3	30	
	22.0104	Judicial Science/Legal Specialization (LL.M., M.C.)					18	180	
	22.0199	Law & Legal Studies, Other					33	330	
		Total Completers For U/A 1280						5200	
		Oversupply							2929
1290	OES	LEGAL ASSISTING							
	28300	Legal Assistants & Technicians, Except Clerical	n/a	n/a	n/a	n/a	n/a	n/a	
	28305	Paralegal Personnel	\$ 15.80	1590	2660	1063	133	1196	
	28308	Title Searchers	\$ 12.80	n/a	n/a	n/a	n/a	n/a	
	28311	Title Examiners & Abstractors	\$ 12.80	n/a	n/a	n/a	n/a	n/a	
	28399	All Other Legal Assistants & Tech. Exc. Clerical	\$ 15.48	810	950	137	68	205	
		Total Job Openings For U/A 1290					1401		
	CIP								
	22.0103	Paralegal/Legal Assistant					0	0	
		Total Completers For U/A 1290						0	
		Undersupply							-1401
LEGAL, SOCIAL & RECREATION SERVICES - 11							OVER	UNDER	BALANCE
Units of Analysis With Oversupply		1030, 1400, 2590, S04, 1080, 1380, S13, 1280					31991		
Units of Analysis With Undersupply		1391, 2510, 2530, 1290						-6872	
Career Cluster Balance		Oversupply							25119

CAREER CLUSTER NUMBER: 12			AVG					COMPLT	EST.
CAREER CLUSTER: PROTECTIVE SERVICES			1999	1998	2008	JOB	OPENINGS	3YR AVG	EST.
CAREER FOCUS: Protective Services/Public Safety (14-41)			WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL 1998-2001	EST. +/- SUPPLY
Units of Analysis	Occupational Titles								
2550	OES	LAW ENFORCEMENT							
	61005	Police & Detective Supervisors	\$ 20.53	1920	2080	159	558	717	
	63011	Police Detectives	\$ 17.60	1340	1590	251	356	607	
	63014	Police Patrol Officers	\$ 15.03	6230	7810	1576	1660	3236	
	63017	Correction Officers & Jailers	\$ 11.37	5810	7650	1835	1591	3426	
	63021	Parking Enforcement Officers	\$ 9.43	190	200	13	17	30	
	63023	Bailiffs	\$ 10.10	310	290	-13	28	28	
	63026	United States Marshalls	\$ 20.53	n/a	n/a	n/a	n/a	n/a	
	63028	Criminal Investigators, Federal	\$ 17.60	210	230	25	55	80	
	63032	Sheriffs & Deputy Sheriffs	\$ 15.03	1780	2270	488	164	652	
	63035	Detectives & Investigators, Except Public	\$ 12.33	1070	1200	127	267	394	
	63038	Railroad & Transit Police & Special Agents	n/a	n/a	n/a	n/a	n/a	n/a	
	63099	All Other Protective Service Workers	\$ 12.60	2710	3120	411	1851	2262	
		Total Job Openings For U/A 2550						11432	
	CIP								
	43.0102	Corrections/Correctional Administration						4	40
	43.0104	Criminal Justice Studies						501	5010
	43.0106	Forensic Technology/Technician						0	0
	43.0107	Law Enforcement/Police Science						72	720
	43.0199	Criminal Justice & Corrections, Other						11	110
	43.9999	Protective Services, Other						0	0
		Total Completers For U/A 2550							5880
		Undersupply							-5552
2570	OES	SECURITY SERVICES							
	63044	Crossing Guards	\$ 6.74	1080	1040	-38	316	316	
	63047	Guards & Watch Guards	\$ 8.89	16440	19710	3274	4100	7374	
		Total Job Openings For U/A 2570						7690	
	CIP								
	43.0109	Security & Loss Prevention Services						3	30
		Total Completers For U/A 2571							30
		Undersupply							-7660

CAREER CLUSTER NUMBER: 12	AVG						COMPLT	EST.	
CAREER CLUSTER: PROTECTIVE SERVICES	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Protective Services/Public Safety (14-41)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

2580	OES	FIRE SAFETY							
61002		Fire Fighting & Prevention Supervisors	\$ 18.43	850	910	58	283	341	
63002		Fire Inspectors	\$ 16.01	180	190	16	47	63	
63005		Forest Fire Inspectors & Prvt Specialists	n/a	n/a	n/a	n/a	n/a	n/a	
63008		Fire Fighters	\$ 14.44	3960	3950	-7	974	974	
Total Job Openings For U/A 2580							1378		
CIP									
43.0201		Fire Protection & Safety Technology/Technician					0	0	
43.0202		Fire Services Administration					0	0	
43.0203		Fire Science/Firefighting					6	60	
43.0299		Fire Protection, Other					0	0	
Total Completers For U/A 2580								60	
Undersupply									-1318

PROTECTIVE SERVICES - 12 SUMMARY		OVER	UNDER	BALANCE
Units of Analysis With Oversupply:	None	0		
Units of Analysis With Undersupply:	2550, 2570, 2580		-14530	
Career Cluster Balance:	Undersupply			-14530

CAREER CLUSTER NUMBER: 13	AVG.						COMPLT		EST.
CAREER CLUSTER: MARKETING, SALES & PROMOTION	1999	1998	2008	<u>JOB OPENINGS</u>			3YR AVG	EST.	+/-
CAREER FOCUS: Marketing/Advertising Group (13-33)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of
Analysis

Occupational Titles

2220	OES	MARKETING/ADVERTISING/PUBLIC RELATIONS							
	13011	Marketing, Advertising & Public Relations	\$28.23	8860	10290	1434	1233	2667	
	34008	Public Relations Specialists & Public Writers	\$15.99	2090	2530	442	546	988	
	43023	Sales Agents, Advertising	\$16.13	2510	2800	288	695	983	
	53908	Advertising Clerks	\$10.83	400	400	-1	95	95	
Total Job Openings For U/A 2220							4733		

CIP

09.0201	Advertising						16	160
09.0501	Public Relations & Organizational Communications						10	100
52.1401	Business Marketing & Marketing Management						234	2340
52.1402	Marketing Research						117	1170
52.1403	International Business Marketing						0	0
52.1499	Marketing, Management & Research						0	0

Total Completers For U/A 2220 3770

Undersupply -963

S05	CIP	MODELING							
	08.0103	Fashion Modeling							

0 0

Total Completers For U/A S05 0

Supply 0

CAREER CLUSTER NUMBER: 13	AVG.						COMPLT	EST.
CAREER CLUSTER: MARKETING, SALES & PROMOTION	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.
CAREER FOCUS: Marketing Sales & Distribution (13-34)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL
								+/- SUPPLY

Units of Occupational Titles

Analysis

1870	OES	REAL ESTATE							
15011		Property & Real Estate Mngs & Administrators	\$16.42	3220	3940	718	433	1151	
43005		Brokers, Real Estate	\$23.85	2000	2620	617	404	1021	
43008		Sales Agents, Real Estate	\$13.86	8130	10240	2110	1639	3749	
43011		Appraisers, Real Estate	\$13.21	1120	1460	340	226	566	
Total Job Openings For U/A 1870								6487	
CIP									
52.1501		Real Estate						0	0
Total Completers For U/A 1870								0	0
Undersupply									-6487
2110	OES	FASHION MERCHANDISING							
21302		Wholesale & Retail Buyers, Except Farm Products	\$16.89	2190	2170	-21	531	531	
49008		Sales Reps, Exclude Scientific & Related Products	\$20.68	29454	32120	2668	7188	9856	
49011		Salespersons, Retail	\$9.02	87800	101470	13668	29757	43425	
Total Job Openings For U/A 2110								53812	
CIP									
08.0101		Apparel & Accessories						0	0
08.0102		Fashion Merchandising						9	90
08.0199		Apparel & Accessories Mrktng Operations, Other						35	350
20.0306		Fashion & Fabric Consultant						0	0
Total Completers For U/A 2110								440	440
Undersupply									-53372
2120	OES	SALES							
41002		First-Line Supervisors & Mgr/Sprvsrs, Sales & Rlt	\$20.42	55870	61420	5551	7300	12851	
43017		Sales Agents, Selected Business Services	\$13.71	4910	6340	1438	1011	2449	
43099		All Other Sales Representatives & Salespersons	\$13.71	1400	1820	425	515	940	
49005		Sales Representatives, Scientific & Related Prod	\$24.92	8570	9540	975	2091	3066	
49008		Sales Reps, Exclude Scientific & Related Products	\$20.68	29450	32120	2668	7188	9856	
49011		Salespersons, Retail	\$9.02	87800	101470	13668	29757	43425	
49014		Salespersons, Parts	\$11.32	7790	7920	137	2237	2374	
49017		Counter & Rental Clerks	\$7.61	12470	16010	3539	5398	8937	
49021		Stock Clerks, Sales Floor	\$8.80	31810	31630	-178	4801	4801	

CAREER CLUSTER NUMBER: 13	AVG.						COMPLT	EST.	
CAREER CLUSTER: MARKETING, SALES & PROMOTION	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Marketing Sales & Distribution (13-34)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
2120	OES	SALES (CONT'D)							
	49023	Cashiers	\$6.88	79540	89570	10030	34662	44692	
	49026	Telemarketers, Door-To-Door Sales Workers	\$12.45	15220	22220	6999	3921	10920	
	49032	Demonstrators, Promoters & Models	n/a	n/a	n/a	n/a	n/a	n/a	
	49999	All Other Sales & Related Workers	\$13.71	9940	11290	1345	3067	4412	
	97117	Driver/Sales Workers	\$11.35	6740	6690	-43	1339	1339	
		Total Job Openings For U/A 2120					150062		
	CIP								
	08.0204	Business Services Marketing Operations					0	0	
	08.0205	Personal Services Marketing Operations					0	0	
	08.0299	Business & Personal Services Mrkt Oper., Other					10	100	
	08.0701	Auctioneering					0	0	
	08.0705	General Retailing Operations					0	0	
	08.0706	General Selling Skills & Sales Operations					0	0	
	08.0708	General Marketing Operations					1000	10000	
	08.0709	General Distribution Operations					0	0	
	08.0799	General Retailing & Wholesaling Operations					431	4310	
	08.0809	Home Products Marketing Operations					0	0	
	08.0810	Office Products Marketing Operations					0	0	
	08.0899	Home & Office Products Marketing Operations					0	0	
	08.1301	Health Products & Services Marketing Operations					0	0	
	08.9999	Marketing Operations/Marketing & Dist Other					15	150	
		Total Completers For U/A 2120						14560	
		Undersupply							-135502
2150	OES	FOOD MARKETING							
	49011	Salespersons, Retail	\$9.02	87800	101470	13668	29757	43425	
	49021	Stock Clerks, Sales Floor	\$8.80	31810	31630	-178	4801	4801	
	49023	Cashiers	\$6.88	79540	89570	10030	34662	44692	
		Total Job Openings For U/A 2150					92918		
	CIP								
	08.0601	Food Products Retailing & Wholesaling Operations					0	0	
	08.0906	Food Sales Operations					0	0	
		Total Completers For U/A 2150						0	
		Undersupply							-92918

CAREER CLUSTER NUMBER: 13	AVG.						COMPLT	EST.	
CAREER CLUSTER: MARKETING, SALES & PROMOTION	1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Marketing Sales & Distribution (13-34)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1999-2001	TOTAL	SUPPLY

Units of Analysis	Occupational Titles								
2160	OES	PURCHASING							
	21302	Wholesale & Retail Buyers, Except Farm Products	\$16.89	2190	2170	-21	531	531	
	21308	Purchasing Agents, Except Wholesale/Rtl/Farm	\$19.62	4930	5300	369	1274	1643	
		Total Job Openings For U/A 2160					2174		
	CIP								
	08.0704	General Buying Operations					0	0	
		Total Completers For U/A 2160						0	
		Undersupply							-2174
2180	OES	INSURANCE							
	21102	Underwriters	\$21.47	2140	2160	13	602	615	
	21505	Special Agents, Insurance	\$20.82	760	850	95	167	262	
	21921	Claims Examiners, Property & Casualty Insurance	\$18.12	750	850	102	125	227	
	43002	Sales Agents & Placers, Insurance	\$20.90	9030	9560	528	2056	2584	
	53302	Insurance Adjusters, Examiners, & Investigators	\$16.31	2940	3310	373	489	862	
	53305	Insurance Appraisers, Auto Damage	\$20.00	290	330	47	48	95	
	53308	Insurance Examining Clerks	\$12.85	230	250	24	30	54	
		Total Job Openings For U/A 2180					4699		
	CIP								
	08.1001	Insurance Marketing Operations					0	0	
	52.0805	Insurance & Risk Management					30	300	
		Total Completers For U/A 2180						88	
		Undersupply							-4399
2200	OES	AUTOMOBILE SALES & SERVICE							
	49014	Salespersons, Parts	\$11.32	7790	7920	137	2237	2374	
	49017	Counter & Rental Clerks	\$7.61	12470	16010	3539	5398	8937	
	97805	Service Station Attendants	\$7.74	2910	3160	252	1276	1528	
	97808	Parking Lot Attendants	\$7.30	770	1020	244	135	379	
		Total Job Openings For U/A 2200					13218		

CAREER CLUSTER NUMBER: 13	AVG.						COMPLT	EST.	
CAREER CLUSTER: MARKETING, SALES & PROMOTION	1999	1998	2008	<u>JOB</u>	<u>OPENINGS</u>		3YR AVG	EST.	+/-
CAREER FOCUS: Marketing Sales & Distribution (13-34)	WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY

Units of Occupational Titles

Analysis

2200 CIP AUTOMOBILE SALES & SERVICE (CONT'D)
08.1203 Vehicle Parts & Accessories Marketing Operations
08.1208 Vehicle Marketing Operations
08.1209 Teacher Assistant/Aide
08.1299 Vehicles & Petroleum Products Mktng Opr., Other

0
0
0
0

0
0
0
0

Total Completers For U/A 2200

0

Undersupply

-13218

MARKET MARKETING, SALES & PROMOTION - 13 SUMMARY		OVER	UNDER	BALANCE
Units of / Units of Analysis With Oversupply:	None	0		
Units of / Units of Analysis With Undersupply:	1870, 2110, 2120, 2160, 2180, 2200		-215152	
Career Cluster Balance:	Undersupply			-215152

CAREER CLUSTER NUMBER: 14			AVG.						COMPLT	EST.
CAREER CLUSTER: TRANSPORTATION			1999	1998	2008	JOB	OPENINGS		3YR AVG	
CAREER FOCUS: Land Transportation Group (06-13)			WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	+/-
									TOTAL	SUPPLY
Units of Analysis	Occupational Titles									
2760	OES	TRUCK & BUS DRIVING								
	97102	Truck Drivers, Heavy Or Tractor-Trailer	\$13.91	55290	62800	7503	7939	15442		
	97105	Truck Drivers, Light, Include Delivery & Rte Wrkrs	\$12.17	31600	38820	7220	4538	11758		
	97108	Bus Drivers, Except School	\$10.76	2280	2580	301	409	710		
	97111	Bus Drivers, School	\$10.55	9960	10610	649	1782	2431		
	97114	Taxi Drivers & Chauffeurs	\$7.42	2680	2900	219	438	657		
			Total Job Openings For U/A 2760					30998		
	CIP									
	49.0205	Truck, Bus & Other Commercial Vehicle Operator							0	0
			Total Completers For U/A 2760						0	
			Undersupply							-30998
D08	OES	MISCELLANEOUS TRANSPORTATION WORKERS								
	97199	All Other Motor Vehicle Operators	\$10.05	1190	1030	-167	208	208		
	97302	Railroad Conductors & Yardmasters	n/a	n/a	n/a	n/a	n/a	n/a		
	97305	Locomotive Engineers	\$19.15	970	1140	168	332	500		
	97308	Rail Yard Engineers, Dinkey Operators & Hostlers	\$17.21	90	70	-22	31	31		
	97311	Locomotive Firers	n/a	n/a	n/a	n/a	n/a	n/a		
	97317	Railroad Brake, Signal & Switch Operators	n/a	410	250	-169	142	142		
	97399	All Other Rail Vehicle Operators & Controllers	\$17.56	190	130	-57	65	65		
	97802	Bridge, Lock & Lighthouse Operators	\$16.23	50	50	-2	20	20		
	97899	All Other Transportation & Related Workers	\$14.84	2050	2360	306	358	664		
	97989	All Other Material Moving Operators	\$10.24	3850	4230	375	887	1262		
			Total Job Openings For U/A D08					2892		

CAREER CLUSTER NUMBER: 14			AVG.					COMPLT	EST.
CAREER CLUSTER: TRANSPORTATION			1999	1998	2008	JOB	OPENINGS	3YR AVG	+/-
CAREER FOCUS: Air & Sea Transportation Group (06-14)			WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	SUPPLY
Units of Analysis	Occupational Titles								
1550	OES	AIRPLANE PILOTING							
	97702	Aircraft Pilots & Flight Engineers	n/a	n/a	n/a	n/a	n/a	n/a	
			Total Job Openings For U/A 1550					n/a	
	CIP								
	49.0101	Aviation & Airway Science						153	1530
	49.0102	Airplane Pilot & Navigator (Professional)						52	520
	49.0104	Aviation Management						21	210
	49.0107	Aircraft Pilot (Private)						0	0
	49.0199	Air Transportation Workers, Other						3	30
			Total Completers For U/A 1550					2290	
			Oversupply						520
1560	OES	AIR TRAFFIC CONTROL							
	39002	Airplane Dispatchers & Air Traffic Contrllrs	n/a	860	880	19	235	254	
			Total Job Openings For U/A 1560					254	
	CIP								
	49.0105	Air Traffic Controller						0	0
			Total Completers For U/A 1560					0	
			Undersupply						-254
2770	OES	WATER TRANSPORTATION							
	77002	Captains & Other Officers, Fishing Vessels	n/a	n/a	n/a	n/a	n/a	n/a	
	97502	Captains, Water Vessels	\$24.58	240	330	94	91	185	
	97505	Mates, Ship, Boat & Barge	\$24.58	170	260	86	67	153	
	97508	Pilots, Ship	\$24.58	200	290	88	76	164	
	97511	Motorboat Operators	n/a	n/a	n/a	n/a	n/a	n/a	
	97514	Able Seamen	\$14.18	170	220	55	65	120	
	97517	Ordinary Seamen & Marine Oilers	\$14.18	380	510	131	147	278	
	97928	Dredge Operators	\$11.72	n/a	n/a	n/a	n/a	n/a	
			Total Job Openings For U/A 2770					900	

CAREER CLUSTER NUMBER: 14		AVG.						COMPLT		EST.
CAREER CLUSTER: TRANSPORTATION		1999	1998	2008	JOB	OPENINGS		3YR AVG	EST.	+/-
CAREER FOCUS: Air & Sea Transportation Group (06-14)		WAGES	EMPL	EMPL	GROWTH	REPLACMT	TOTAL	1998-2001	TOTAL	SUPPLY
49.0303	Fishing Technology/Commercial Fishing							0	0	
49.0306	Marine Maintenance / Fitter & Ship Repairer							6	60	
49.0309	Marine Science/Merchant Marine Officer							0	0	
49.0399	Water Transportation, Other							2	20	
Total Completers For U/A 2770									80	
Undersupply										-820

TRANSPORTATION - 14 SUMMARY		OVER	UNDER	BALANCE
Units of Analysis With Oversupply:	1550	520		
Units of Analysis With Undersupply:	1560, 2760, 2770, D08		32072	
Career Cluster Balance:	Oversupply			31552